South Coast Air Quality Management District

QMD 21865 Copley Drive, Diamond Bar, CA 91765-4178 (909) 396-2000 • www.aqmd.gov

#### AGENDA

#### HYBRID GOVERNING BOARD MEETING OCTOBER 4, 2024

A meeting of the South Coast Air Quality Management District Board will be held at 9:00 a.m. on Friday, October 4, 2024 through a hybrid format of in-person attendance in the Dr. William A. Burke Auditorium at the South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, and/or virtual attendance via videoconferencing and by telephone. Please follow the instructions below to join the meeting remotely.

Please refer to South Coast AQMD's website for information regarding the format of the meeting, updates, and details on how to participate at: <u>http://www.aqmd.gov/home/news-events/meeting-agendas-minutes.</u>

Electronic Participation Information (Instructions provided at the bottom of the agenda)	Join Zoom Meeting - from PC, Laptop or Phone https://scaqmd.zoom.us/i/93128605044 Meeting ID: 931 2860 5044 (applies to all) Teleconference Dial In +1 669 900 6833 or +1 253 215 8782 One tap mobile +16699006833,,93128605044# or +12532158782,,93128605044# Spanish Language Only Audience (telephone) Número Telefónico para la Audiencia que Habla Español Teleconference Dial In/Numero para llamar: +1 669 900 6833 Meeting ID/Identificación de la reunión: 932 0955 9643		
	One tap mobile: +16699006833,,93209559643		
Public Comment Will Still Be Taken	Audience will be allowed to provide public comment in person and through Zoom connection or telephone. Comments are limited to three (3) minutes per person for all items on the Consent and Board Calendars and may be further limited by the Chair to ensure all can be heard.		
	Phone controls for participants: The following commands can be used on your phone's dial pad while in meeting: *6 (Toggle mute/unmute); *9 - Raise hand		
	The name and talenhane number of the appropriate staff person to call		
Questions About an Agenda Item	<ul> <li>The name and telephone number of the appropriate staff person to call for additional information or to resolve concerns is listed for each agenda item.</li> </ul>		
	<ul> <li>In preparation for the meeting, you are encouraged to obtain whatever clarifying information may be needed to allow the Board to move expeditiously in its deliberations.</li> </ul>		

Meeting Procedures	•	The public meeting of the South Coast AQMD Governing Board begins at 9:00 a.m. The Governing Board generally will consider items in the order listed on the agenda. However, <u>any item</u> may be considered in <u>any order</u> .
		After taking action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.

All documents (i) constituting non-exempt public records, (ii) relating to an item on the agenda, and (iii) having been distributed to at least a majority of the Governing Board after the agenda is posted, are available prior to the meeting for public review at South Coast AQMD's Clerk of the Boards Office, 21865 Copley Drive, Diamond Bar, CA 91765 or web page at <a href="http://www.agmd.gov">www.agmd.gov</a>)

#### Americans with Disabilities Act and Language Accessibility

Disability and language-related accommodations can be requested to allow participation in the Governing Board meeting. The agenda will be made available, upon request, in appropriate alternative formats to assist persons with a disability (Gov. Code Section 54954.2(a)). In addition, other documents may be requested in alternative formats and languages. Any disability or language-related accommodation must be requested as soon as practicable. Requests will be accommodated unless providing the accommodation would result in a fundamental alteration or undue burden to the South Coast AQMD. Please contact the Clerk of the Boards Office at (909) 396-2500 from 7:00 a.m. to 5:30 p.m., Tuesday through Friday, or send the request to cob@aqmd.gov.

#### A webcast of the meeting is available for viewing at:

http://www.aqmd.gov/home/news-events/webcast

#### CALL TO ORDER

- Pledge of Allegiance
- Roll Call
- Opening Comments: Vanessa Delgado, Chair Other Board Members Wayne Nastri, Executive Officer

Staff/Phone (909) 396-

Thomas/3268

Krause/2706

PUBLIC COMMENT PERIOD – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3) The public may comment on any subject within the South Coast AQMD's authority that does not appear on the agenda, during the Public Comment Period. Each speaker addressing non-agenda items may be limited to a total of (3) minutes.

#### CONSENT AND BOARD CALENDAR (Items 1 through 20)

Note: Consent and Board Calendar items held for discussion will be moved to Item No.21.

#### Item 1 and 2 – Action Items/No Fiscal Impact

- 1. Approve Minutes of September 6, 2024
- Set Public Hearings November 1, 2024 to Consider Nastri/3131
   Adoption of and/or Amendments to South Coast AQMD Rules and Regulations:
  - A. Determine That Proposed Amended Rule 1151 Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations Does Not Require New Environmental Document; and Amend Rule 1151

In 2018 and 2020, the California Office of Environmental Health Hazard Analysis determined that two compounds used in coatings and solvents, tert-Butyl Acetate (t-Bac) para-Chlorobenzotrifluoride (pCBtF), and have carcinogenic health effects. pCBtF and t-BAc are used in coatings and solvent that are regulated under Rule 1151. Proposed Amended Rule 1151 will phase out pCBtF and t-BAc, temporarily allow higher VOC limits while coatings are being reformulated, and add additional reporting requirements. This action is to adopt the Resolution: 1) Determining that Proposed Amended Rule 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations is a later activity within the scope of the Final Program Environmental Impact Report for the 2022 AQMP such that no new environmental document is required; and 2) Amending Rule 1151 - Motor Vehicle and Equipment Non-Assembly Line Mobile Coating Operations. (To Be Reviewed: Stationary Source Committee, October 18, 2024)

B. Determine That Proposed Amended Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, Is Exempt from CEQA; and Amend Rule 1173

Rule 1173 applies to refineries, chemical plants, oil and gas production fields, and others. Proposed Amended Rule 1173 will establish enhanced leak detection and repair requirements using optical gas imaging technology and more stringent control requirements including lower leak standards during self-inspection of most types of components. Amendments to Rule 1173 will address Community Emission Reduction Plan objectives from the AB 617 community Wilmington, Carson, West Long Beach. The proposed amended rule will also include updated violation standards, streamlined repair schedules, and contingency measures to fulfill federal requirements. This action is to adopt the Resolution: 1) Determining that Proposed Amended Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, is exempt from the requirements of the California Environmental Quality Act, and 2) Amending Rule 1173. (Reviewed: Stationary Source Committee, August 16, 2024)

#### Items 3 through 8 – Budget/Fiscal Impact

3. Recognize Revenue, Transfer and Appropriate Funds, Issue Purchase Orders, and Add Positions for Community Air Monitoring Near Refineries and Related Facilities

In January 2024, the Board amended Rule 1180 and adopted Rule 1180.1, which requires oil refineries, related facilities, and other refineries to fund the installation and operation of fenceline and community air monitoring systems. These actions are to recognize revenue of up to \$5,227,692 and up to \$2,309,469 for Rule 1180 and Rule 1180.1, respectively, into Rule 1180 Special Revenue Fund (78), transfer and appropriate up to \$1,455,400 to Monitoring and Analysis' FY 2024-25 and/or FY 2025-26 Budget, issue purchase orders for air monitoring shelters and vehicles, and add new positions for the planning and implementation of enhanced and additional community air monitoring. (Reviewed: Administrative Committee, September 13, 2024; Recommended for Approval)

Low/2269

4.	Recognize Revenue, Appropriate Funds, Issue Solicitation and Purchase Order for Air Monitoring Shelter	Low/2269
	South Coast AQMD previously received a Federal grant award from U.S. EPA under the Inflation Reduction Act. This action is to recognize the remaining balance of up to \$101,972 and appropriate these funds into the Monitoring and Analysis Division's FY 2024-25 Budget, and issue a solicitation and purchase order for an air monitoring shelter. (Reviewed: Administrative Committee, September 13, 2024; Recommended for Approval)	
5.	Issue Solicitations and Purchase Orders for Air Monitoring and Laboratory Equipment	Low/2269
	South Coast AQMD FY 2024-25 Annual Budget approved the purchase of air monitoring and laboratory equipment. This action is to issue solicitations and purchase orders for air monitoring and laboratory equipment. (Reviewed: Administrative Committee, September 13, 2024; Recommended for Approval)	
6.	Appropriate Funds and Amend Contract to Implement Air Quality Community Training and Provide Air Filtration Systems in Eastern Coachella Valley for U.S. EPA State Environmental Justice Cooperative Agreement Program	Heard-Johnson/3428
	U.S. EPA awarded South Coast AQMD a grant from the State Environmental Justice Cooperative Agreement Program to implement an Air Quality Academy to improve environmental literacy and air quality data in the Assembly Bill 617 (AB 617) community of Eastern Coachella Valley. The Air Quality Academy was established in 2021 and South Coast AQMD proposes to spend the remaining funds to provide air filtration systems and additional training to operate the air filtration systems and reduce exposure to air pollution within residential homes in Eastern Coachella Valley. South Coast AQMD requested a one-year no- cost extension and received approval from U.S. EPA to reallocate funding to continue implementation until October 31, 2025. These actions are to appropriate up to \$45,052 to the Diversity, Equity and Inclusion with Community Air Programs Office FY 2024-25 and/or 2025-26 Budgets, and to amend an existing contract with Desert Healthcare District and Foundation. (Reviewed: Administrative Committee, September 13, 2024; Recommended for Approval)	
7.	Authorize Purchase of ESRI Enterprise Agreement	Moskowitz/3329
	South Coast AQMD currently uses Environmental Systems Research Institute, Inc. (ESRI) products for a wide range of geospatial services and the management and sharing of geographic information. These products support various enterprise-level applications and provide visual geospatial tools to enhance our communication with the public. The demand for access to ESRI products and services has outpaced the licenses available under South Coast AQMD's current agreement with ESRI. The new agreement will include additional product services, a substantial increase in the number of licenses, and enhanced	

	support from ESRI. This action authorizes the purchase of a ESRI Enterprise Agreement for a period of three years, at an amount not to exceed \$185,000 per year. Funds for the first year's purchase are included in Information Management's FY 2024-25 Budget, with funds for subsequent years to be included in future budget requests. (Reviewed: Administrative Committee, September 13, 2024; Recommended for Approval)	
8.	Approve Contract Modification as Approved by MSRC	McCallon
	The MSRC approved a contract with Better World Group Advisors for programmatic outreach services for the MSRC. The MSRC seeks Board approval of the contract award as part of the FYs 2024-27 Work Program. (Reviewed: Mobile Source Air Pollution Reduction Review Committee, September 19, 2024; Recommended for Approval)	
	<u>Items 9 through 15 – Information Only/Receive and File</u>	
9.	Legislative, Public Affairs and Media Report	Alatorre/3122
	This report highlights the August 2024 outreach activities of the Legislative, Public Affairs and Media Office, which includes: Major Events, Community Events/Public Meetings, Environmental Justice Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Business Assistance, Media Relations and Outreach to Business and Federal, State and Local Government. (No Committee Review)	
10.	Hearing Board Report	Ali

11.	Civil Filings and Civil Penalties Report	Gilchrist/3459
	This report summarizes monthly penalties and legal actions filed by the General Counsel's Office from August 1, 2024 through August 31, 2024. An Index of South Coast AQMD Rules is attached with the penalty report. (No Committee Review)	
12.	Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects	Krause /2706
	This report provides a listing of environmental documents prepared by other public agencies seeking review by South Coast AQMD between August 1, 2024 and August 31, 2024, and proposed projects for which South Coast AQMD is acting as lead agency pursuant to CEQA. (No Committee Review)	
13.	Rule and Control Measure Forecast This report highlights South Coast AQMD rulemaking activities	Rees/2856

and public hearings scheduled for 2024. (No Committee Review)

14. Report of RFQs/RFPs Scheduled for Release in October Jain/2804 This report summarizes the RFQs/RFPs for budgeted services over \$100,000 scheduled to be released for advertisement for the month of October. (Reviewed: Administrative Committee, September 13, 2024)
15. Status Report on Major Ongoing and Upcoming Projects for Information Management
Information Management is responsible for data systems management services in support of all South Coast AQMD operations. This action is to provide the monthly status report on

#### Items 16 through 20 -- Reports for Committees and CARB

The September 20, 2024 meetings of the Mobile Source, Stationary Source and Technology Committees were cancelled. The next regularly scheduled meetings for these committees will be held on October 18, 2024.

major automation contracts and planned projects. (Reviewed:

Administrative Committee, September 13, 2024)

16.	Administrative Committee (Receive & File)	Chair: Delgado	Nastri/3131
17.	Investment Oversight Committee (Receive & File)	Chair: Cacciotti	Jain/2804
18.	Legislative Committee (Receive & File)	Chair: Cacciotti	Alatorre/3122
19.	Mobile Source Air Pollution Reduction Review Committee Report (Receive & File)	Board Rep.: Hagman	Katzenstein/2219
20.	California Air Resources Board Monthly Report (Receive & File)	Board Rep.: Kracov	Thomas/3268
21.	Items Deferred from Consent and Board Calen	<u>dar</u>	
PUBLIC	HEARINGS		
22. Certify Final Subsequent Environmental Assessment for Krau Proposed Amended Rule 1135 - Emissions of Oxides of Nitrogen From Electricity Generating Facilities; and Amend Rule 1135			Krause/2706
	Rule 1135 establishes NOx emission limits for ele facilities. During the 2022 Amendment to Rule 11 raised regarding the NOx Best Available F Technology limit for electric generating units on Island. Proposed Amended Rule 1135 (PAR 1135) e emission limits for electric generating units loc Catalina Island. PAR 1135 includes monitoring, recordkeeping requirements for electric generating Santa Catalina Island. This action is to adopt the Certifying the Final Subsequent Environmental A Proposed Amended Rule 1135; and 2) Amend (Reviewed: Stationary Source Committee, August	35, issues were Retrofit Control Santa Catalina establishes NOx ated on Santa reporting, and units located on e Resolution: 1) Assessment for ing Rule 1135.	

 Determine That Coachella Valley Attainment Plan for 2008 8-Hour Ozone Standard Is Exempt from CEQA and Adopt Coachella Valley Attainment Plan for 2008 8-Hour Ozone Standard

The Coachella Valley is in "extreme" nonattainment for the 2008 8hour ozone NAAQS with an attainment date of July 20, 2032. On April 7, 2023, the Coachella Valley was reclassified from "severe-15" to "extreme" nonattainment to resolve a transportation conformity freeze. An attainment demonstration and other SIP planning elements have been developed to comply with the federal Clean Air Act and U.S. EPA's SIP requirements for "extreme" nonattainment areas. Updated emissions inventory and modeling analysis indicate that ongoing implementation of currently adopted regulations and programs by both South Coast AQMD and CARB will lead to attainment of this standard by the attainment date. In addition, the control strategy outlined in the 2022 AQMP will further ensure Coachella Valley attains this standard on time, if not earlier. (Reviewed: Mobile Source Committee, August 16, 2024)

#### BOARD MEMBER TRAVEL - (No Written Material)

Board member travel reports have been filed with the Clerk of the Boards, and copies are available upon request.

#### CLOSED SESSION -- (No Written Material)

#### Gilchrist/3459

#### **CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION**

It is necessary for the Board to recess to closed session pursuant to Government Code sections 54956.9(a) and 54956.9(d)(1) to confer with its counsel regarding pending litigation which has been initiated formally and to which the South Coast AQMD is a party. The actions are:

- In the Matter of South Coast Air Quality Management District v. Southern California Gas Company, Aliso Canyon Storage Facility, South Coast AQMD Hearing Board Case No. 137-76 (Order for Abatement); People of the State of California, ex rel South Coast Air Quality Management District v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No.4861;
- <u>South Coast Air Quality Management District, et al. v. EPA</u>, United States Court of Appeals, D.C. Circuit, Case No. 19-1241 (consolidated with <u>Union of Concerned Scientists v. NHTSA</u>, No. 19-1230);
- <u>South Coast Air Quality Management District, et al. v. NHTSA, EPA, et al.</u>, United States Court of Appeals, D.C. Circuit, Case No. 20-1173 (consolidated with <u>Competitive Enterprise Institute, et al. v. NHTSA</u>, No. 20-1145);
- <u>Natural Resources Defense Council, et al. v. City of Los Angeles, et al.</u>, San Diego Superior Court, Case No. 37-2021-00023385-CU-TT-CTL (China Shipping Case) (transferred from Los Angeles Superior Court, Case No. 20STCP02985); Fourth District Court of Appeal, Division One, No. D080902;
- In the Matter of South Coast Air Quality Management District v. Baker Commodities, South Coast AQMD Hearing Board Case No. 6223-1 (Order for Abatement);
- <u>South Coast Air Quality Management District v. EPA</u>, U.S. District Court for the Central District of California, Case No. 2:23-cv-02646;

Rees/2856

- <u>Western States Trucking Association, Inc. v. EPA, et al., Unites States Court of Appeals</u>, D.C. Circuit, Case No. 23-1143 (amicus brief); and
- <u>April Trinn vs. South Coast Air Quality Management District; Adminsure</u>, Case Nos. ADJ10421959; ADJ12628721; ADJ10421958.

#### **CONFERENCE WITH LEGAL COUNSEL – INITIATING LITIGATION**

It is also necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (two cases).

#### **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION**

Also, it is necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(d)(2) to confer with its counsel because there is a significant exposure to litigation against the South Coast AQMD (two cases).

#### CONFERENCE WITH LABOR NEGOTIATORS

It is also necessary to recess to closed session pursuant to Government Code section 54957.6 to confer with labor negotiators:

Agency Designated Representative: A. John Olvera, Deputy Executive Officer – Administrative & Human Resources;

- Employee Organization(s): Teamsters Local 911, and South Coast AQMD Professional Employees Association; and
- Unrepresented Employees: Executive Officer, General Counsel, Designated Deputies and Management and Confidential employees.

#### **ADJOURNMENT**

#### \*\*\*PUBLIC COMMENTS\*\*\*

Members of the public are afforded an opportunity to speak on any agenda item before consideration of that item. Persons wishing to speak may do so in person or remotely via Zoom or telephone. To provide public comments via a Desktop/Laptop or Smartphone, click on the "Raise Hand" at the bottom of the screen, or if participating via Dialin/Telephone Press \*9. This will signal to the host that you would like to provide a public comment and you will be added to the list.

All agendas are posted at South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, and website. http://www.aqmd.gov/home/news-events/meeting-agendas-minutes, at least 72 hours in advance of the meeting. At the beginning of the agenda, an opportunity is also provided for the public to speak on any subject within the South Coast AQMD's authority. Speakers may be limited to a total of three (3) minutes for the entirety of the Consent Calendar plus Board Calendar, and three (3) minutes or less for each of the other agenda items.

Note that on items listed on the Consent Calendar and the balance of the agenda any motion, including action, can be taken (consideration is not limited to listed recommended actions). Additional matters can be added and action taken by two-thirds vote, or in the case of an emergency, by a majority vote. Matters raised under the Public Comment Period may not be acted upon at that meeting other than as provided above.

Written comments will be accepted by the Board and made part of the record. Individuals who wish to submit written or electronic comments must submit such comments to the Clerk of the Board, South Coast AQMD, 21865 Copley Drive, Diamond Bar, CA 91765-4178, (909) 396-2500, or to cob@aqmd.gov, on or before 5:00 p.m. on the Tuesday prior to the Board meeting.

#### ACRONYMS

Acito	
AQ-SPEC = Air Quality Sensor Performance	NAAQS = National Ambient Air Quality Standards
Evaluation Center	NATTS = National Air Toxics Trends Station
AQIP = Air Quality Investment Program	NESHAPS = National Emission Standards for
AQMP = Air Quality Management Plan	Hazardous Air Pollutants
AVR = Average Vehicle Ridership	NGV = Natural Gas Vehicle
BACT = Best Available Control Technology	NOx = Oxides of Nitrogen
BARCT = Best Available Retrofit Control Technology	NSPS = New Source Performance Standards
Cal/EPA = California Environmental Protection Agency	NSR = New Source Review
CARB = California Air Resources Board	OEHHA = Office of Environmental Health Hazard
CEMS = Continuous Emissions Monitoring Systems	Assessment
CEC = California Energy Commission	PAMS = Photochemical Assessment Monitoring
CEQA = California Environmental Quality Act	Stations
CE-CERT =College of Engineering-Center for Environmental	PEV = Plug-In Electric Vehicle
Research and Technology	PHEV = Plug-In Hybrid Electric Vehicle
CNG = Compressed Natural Gas	PM10 = Particulate Matter ≤ 10 microns
CO = Carbon Monoxide	PM2.5 = Particulate Matter < 2.5 microns
DOE = Department of Energy	RECLAIM=Regional Clean Air Incentives Market
EV = Electric Vehicle	RFP = Request for Proposals
EV/BEV = Electric Vehicle/Battery Electric Vehicle	RFQ = Request for Quotations
FY = Fiscal Year	RFQQ=Request for Qualifications and Quotations
GHG = Greenhouse Gas	SCAG = Southern California Association of Governments
HRA = Health Risk Assessment	SIP = State Implementation Plan
LEV = Low Emission Vehicle	SOx = Oxides of Sulfur
LNG = Liquefied Natural Gas	SOON = Surplus Off-Road Opt-In for NOx
MATES = Multiple Air Toxics Exposure Study	SULEV = Super Ultra Low Emission Vehicle
MOU = Memorandum of Understanding	TCM = Transportation Control Measure
MSERCs = Mobile Source Emission Reduction Credits	ULEV = Ultra Low Emission Vehicle
MSRC = Mobile Source (Air Pollution Reduction) Review	U.S. EPA = United States Environmental Protection
Committee	Agency
	VOC = Volatile Organic Compound

ZEV = Zero Emission Vehicle

#### **INSTRUCTIONS FOR ELECTRONIC PARTICIPATION**

#### Instructions for Participating in a Virtual Meeting as an Attendee

As an attendee, you will have the opportunity to virtually raise your hand and provide public comment.

Before joining the call, please silence your other communication devices such as your cell or desk phone. This will prevent any feedback or interruptions during the meeting.

#### For language interpretation:

Click the interpretation Globe icon at the bottom of the screen Select the language you want to hear (either English or Spanish) Click "Mute Original Audio" if you hear both languages at the same time.

#### Para interpretación de idiomas:

Haga clic en el icono de interpretación el globo terráqueo en la parte inferior de la pantalla Seleccione el idioma que desea escuchar (inglés o español) Haga clic en "Silenciar audio original" si escucha ambos idiomas al mismo tiempo.

**Please note:** During the meeting, all participants will be placed on Mute by the host. You will not be able to mute or unmute your lines manually.

After each agenda item, the Chair will announce public comment.

Speakers may be limited to a total of 3 minutes for the entirety of the consent calendar plus board calendar, and three minutes or less for each of the other agenda items.

A countdown timer will be displayed on the screen for each public comment.

If interpretation is needed, more time will be allotted.

#### Directions to provide public comment on ZOOM from a DESKTOP/LAPTOP or SMARTPHONE:

Click on the "Raise Hand" feature at the bottom of the screen. This will signal to the host that you would like to provide a public comment and you will be added to the list.

#### Directions to provide public comment via TELEPHONE:

Dial \*9 on your keypad to signal that you would like to comment.

#### **Directions for Spanish Language TELEPHONE line only:**

- The call in number is the same (+1 669 900 6833)
- The meeting ID number is 928-3000-3925
- If you would like to make public comment, please dial \*9 on your keypad to signal that you would like to comment.

#### Instrucciones para la línea de TELÉFONO en español únicamente:

- El número de llamada es el mismo (+1 669900 6833 o +1 93209559643)
- El número de identificación de la reunión es 928-3000-3925
- Si desea hacer un comentario público, marque \*9 en su teclado para indicar que desea comentar.

1 Back to Agenda

BOARD MEETING DATE: October 4, 2024 AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the September 6, 2024 Board Meeting.

RECOMMENDED ACTION: Approve the September 6, 2024 Board Meeting Minutes.

> Faye Thomas Clerk of the Boards

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#### FRIDAY, SEPTEMBER 6, 2024

Notice having been duly given, the regular meeting of the South Coast Air Quality Management District Board was conducted in a hybrid format (in person and remotely via videoconferencing and telephone). Members present:

Senator Vanessa Delgado (Ret.), Chair Senate Rules Committee Appointee

Councilmember Michael A. Cacciotti, Vice Chair Cities of Los Angeles County – Eastern Region

Mayor Patricia Lock Dawson Cities of Riverside County

Supervisor Curt Hagman County of San Bernardino

Mayor Pro Tem Larry McCallon Cities of San Bernardino County

Supervisor V. Manuel Perez County of Riverside

Councilmember Carlos Rodriguez Cities of Orange County

Mayor José Luis Solache Cities of Los Angeles County – Western Region

Absent: Supervisor Andrew Do County of Orange

> Gideon Kracov Governor's Appointee

Supervisor Holly J. Mitchell County of Los Angeles

Board Member Veronica Padilla-Campos Speaker of the Assembly Appointee

Councilmember Nithya Raman City of Los Angeles For additional details of the Governing Board Meeting, please refer to the recording of the Webcast at: Live Webcast (aqmd.gov)

**CALL TO ORDER**: Chair Delgado called the meeting to order at 9:03 a.m.

- Pledge of Allegiance: Led by Vice Chair Cacciotti
- Roll Call
  - Supervisor Hagman arrived at 9:08 a.m.
- Opening Comments

Vice Chair Cacciotti expressed appreciation to the MSRC and the Board for the funds awarded to the City of South Pasadena's police department to implement an allelectric fleet and shared a video showcasing the Tesla police vehicles. For additional details, please refer to the <u>Webcast</u> beginning at 6:49.

Executive Officer Wayne Nastri provided a brief update on the Ports Working Group Meetings, and announced that the September meetings of the Mobile Source, Stationary Source, and Technology committees were being cancelled.

Chair Delgado acknowledged the passing of former Los Angeles Councilmember and California State Assemblymember Richard Alatorre and requested that today's meeting be adjourned in his honor. Chair Delgado, Mayor Solache, Supervisor Perez, Vice Chair Cacciotti, and Mayor Lock Dawson reflected on the legacy and leadership of Mr. Alatorre and extended condolences to his family. A moment of silence was observed in Mr. Alatorre's honor. For additional details, please refer to the <u>Webcast</u> beginning at 12:06.

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# **<u>PUBLIC COMMENT PERIOD</u>** – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3)

# The Public Comment Period on Non-Agenda Items was opened. The following individuals addressed the Board.

Fernando Gaytan, Earthjustice, expressed gratitude to the Board for unanimously passing the Rail Yard ISR rule at the August meeting. He commented on the Ports ISR and requested that the draft rule language be released within the next month to begin developing the rule and addressing infrastructure challenges. For additional details, please refer to the <u>Webcast</u> beginning at 26:00.

Ranji George, a member of the public, acknowledged the passing of Elaine Chang, former South Coast AQMD Deputy Executive Officer of Planning & Rules. He commented on the merits of hydrogen and urged the Board to support hydrogen technology. For additional details, please refer to the <u>Webcast</u> beginning at 28:42.

There being no further requests to speak, the public comment period was closed for Non-Agenda Items.

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# **CONSENT AND BOARD CALENDAR**

# Items 1 through 3 – Action Items/No Fiscal Impact

- 1. Approve Minutes of August 2, 2024 Board Meeting
- 2. Set Public Hearings October 4, 2024 to Consider Adoption of and/or Amendments to South Coast AQMD Rules and Regulations
  - A. Certify Final Subsequent Environmental Assessment for Proposed Amended Rule 1135 - Emissions of Oxides of Nitrogen From Electricity Generating Facilities; and Amend Rule 1135
  - B. Determine That Coachella Valley Attainment Plan for 2008 8-Hour Ozone Standard Is Exempt from CEQA and Adopt Coachella Valley Attainment Plan for 2008 8-Hour Ozone Standard
- 3. Execute Memorandum of Cooperation on Building Transpacific Partnerships for Green Maritime Economy, between South Coast AQMD and Harbor Department of City of Long Beach in Southern California and North American Representative Office of Shenzhen, Shenzhen Port Group Company Limited, and Yantian International Container Terminals Limited in Shenzhen, China

# Items 4 through 10 – Budget/Fiscal Impact

- 4. Allocate Funds, Issue RFP, Execute and Amend Contracts for Residential and Commercial Electric Lawn and Garden Equipment Program Support
- 5. Issue Program Announcement and Execute Contracts for AB 617 Public School Air Filtration Program
- 6. Establish Special Revenue Fund and Recognize Revenue for Implementation of INVEST CLEAN Program and Reimburse General Fund
- 7. Adopt Resolution to Recognize Funds and Accept Terms and Fulfill Conditions and Requirements of Sustainable Transportation Planning Grant Award from California Department of Transportation and Authorize Executive Officer to Enter into Agreement with California Air Pollution Control Officer's Association
- 8. Authorize Purchase of Microsoft Office 365
- 9. Transfer and Appropriate Funds and Authorize Sole Source Purchase to Replace Uninterruptable Power Supply System at Diamond Bar Headquarters
- Issue Request for Information and Approve MOUs, Clarified Funding Allocation and Fund Transfer for Miscellaneous and Direct Expenditures Costs in FY 2024-25 as Approved by MSRC

# Items 11 through 19 – Information Only/Receive and File

- 11. Legislative, Public Affairs and Media Report
- 12. Hearing Board Report
- 13. Civil Filings and Civil Penalties Report
- 14. Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects
- 15. Rule and Control Measure Forecast
- 16. Status Report on Regulation XIII New Source Review
- 17. Report of RFQs/RFPs Scheduled for Release in September
- 18. FY 2023-24 Contract Activity
- 19. Status Report on Major Ongoing and Upcoming Projects for Information Management

# Items 20 through 25 - Reports for Committees and CARB

The CARB Board meeting for August was cancelled.

- 20. Administrative Committee
- 21. Legislative Committee
- 22. Mobile Source Committee
- 23. Stationary Source Committee
- 24. Technology Committee
- 25. Mobile Source Air Pollution Reduction Review Committee
- 26. <u>Items Deferred from Consent and Board Calendar</u> There were no items deferred.

#### **Disclosures**

Mayor Pro Tem McCallon reported that he had no financial interest in Agenda Item No. 10 but is required to identify for the record that he is the Chair of the MSRC, which is involved in this item.

Supervisor Hagman reported that he had no financial interest in Agenda Item No. 10 but is required to identify for the record that he is a Member of the MSRC, which is involved in this item.

Executive Officer Wayne Nastri reported that he had no financial interest in Agenda Item No. 7 but is disclosing for the record that he is a Director of the California Air Pollution Control Officers Association, which is involved in this item.

The public comment period was opened for Agenda Item Nos. 1-25. The following individual addressed the Board.

#### Agenda Item No. 6

Ranji George, expressed support for funds awarded to implement battery electric projects but was disappointed that staff did not include funding to advance hydrogen technologies or to address growing concerns about the disposal of EV batteries. For additional details, please refer to the <u>Webcast</u> beginning at 33:15.

There being no further requests to speak, the public comment period was closed for Agenda Item Nos. 1 through 25.

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#### **Board Action (Items 1-25)**

MOVED BY HAGMAN AND SECONDED BY MCCALLON TO APPROVE AGENDA ITEM NOS. 1 THROUGH 25 AS RECOMMENDED AND:

RECEIVE AND FILE THE REPORTS FOR THE BOARD COMMITTEES AND MSRC; AND

ADOPT RESOLUTION NO. 24-22 RECOGNIZING FUNDS AND ACCEPTING THE TERMS AND FULFILLING THE CONDITIONS AND REQUIREMENTS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) SUSTAINABLE TRANSPORTATION PLANNING GRANT AWARD.

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES:	Cacciotti, Lock Dawson, Delgado, Hagman,
	McCallon, Perez, Rodriguez, and Solache

NOES: None

ABSENT: Do, Kracov, Mitchell, Padilla-Campos, and Raman

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#### STAFF PRESENTATION/BOARD DISCUSSION/RECEIVE AND FILE

27. Permitting Enhancement Program Status Update

Jason Aspell, Deputy Executive Officer/Engineering and Permitting, gave the staff presentation on Agenda Item No. 27 and shared a video of initial work on the new automation/modernization tools for the permitting process. For additional details, please refer to the <u>Webcast</u> beginning at 37:08.

Ron Moskowitz, Chief Information Officer/Information Management, highlighted how artificial intelligence (AI) was used in the video demonstration and the work that Information Management staff is doing to evaluate how the South Coast AQMD can effectively use AI technologies. For additional details, please refer to the <u>Webcast</u> beginning at 54:40.

Chair Delgado inquired about outreach to inform permit applicants about the Permit Streamlining Task Force (PSTF) and the new electronic permit application submittal system. Mr. Aspell explained that in addition to various distribution lists they recently launched a general permitting sign up and are continuing to work to build on wider distribution of notices for these meetings. For additional details, please refer to the <u>Webcast</u> beginning at 56:12.

Chair Delgado asked Mr. Aspell for his opinion about the Permit Enhancement Program (PEP). Mr. Aspell responded that it was daunting in the beginning, but it is nice to see staff's efforts and the increase in production numbers. For additional details, please refer to the <u>Webcast</u> beginning at 58:11.

Supervisor Perez commented on the importance of training and creating a positive culture of "yes" to show staff our mission and how we can improve public health, balance economic development and bring forces together. He also discussed the air quality challenges in Coachella Valley and that new tools may be needed to better understand and address the dust issues in that area. For additional details, please refer to the <u>Webcast</u> beginning at 59:10.

Supervisor Perez asked about how long it takes to process a permit. Mr. Aspell responded that it depends on the type of project. Simple projects can be two months while other permits are generally six months. Title V permits and more complex permits can be 18 months and sometimes longer. Supervisor Perez commented that when other agencies are involved, such as U.S. EPA, interagency staff communication is important to keep the project moving for the benefit of the community. For additional details, please refer to the <u>Webcast</u> beginning at 1:05:00.

Mayor Pro Tem McCallon thanked Chair Delgado for her leadership on this issue and congratulated staff for their efforts. He commented on the disturbing aspect of Artificial Intelligence to manipulate visuals, which he cited as a reason to want to have in person interactions. For additional details, please refer to the <u>Webcast</u> beginning at 1:07:05.

Councilmember Rodriguez echoed comments regarding the Chair's leadership and staff's efforts and commented that it would be good to have general goals for completing different types of permits. He added that communicating these general timeframes to permit applicants will provide an expectation. Councilmember Rodriguez recognized that some permits may take longer than the goal, but this information provides mutal expectations. Mr. Aspell provided information about outreach efforts and how his team is looking at mechanisms to shorten the review process. For additional details, please refer to the <u>Webcast</u> beginning at 1:07:08.

<u>The public comment period was opened for Agenda Item No. 27. The following individuals</u> <u>addressed the Board.</u> For additional details, please refer to the <u>Webcast</u> beginning at the time stamp indicated below. David Rothbart, Clean Water SoCal and PSTF member (1:13:36)

Bill Quinn, California Council for Environmental and Economic Balance and PSTF member (1:21:44)

Curt Coleman, Southern California Air Quality Alliance (1:22:48)

The above speakers made the following comments.

- Appreciative of Chair Delgado identifying this issue as a priority
- Acknowledged staff for their hard work and progress in streamlining the permit process
- Commended staff for changing the PSTF to an advisory role
- Suggested evaluating the potential of AI to process permit applications for complex rules and regulations
- Noted that streamlining of the permit process benefits both businesses and community

Dr. Genghmun Eng, a member of the public, commented on President Biden's Executive Order to prioritize environmental justice communities and expressed concern that efforts to expedite the permit process for businesses will jeopardize impacted communities. For additional details, please refer to the <u>Webcast</u> beginning at 1:16:15.

Chair Delgado and Vice Chair Cacciotti spoke about the air quality and public health benefits to expediting the permit process. Supervisor Perez commented that it is important to think about the community benefit moving forward especially in environmental justice communities. For additional details, please refer to the <u>Webcast</u> beginning at 1:18:29.

Harvey Eder, Public Solar Power Coalition, commented on the need to ensure that equity considerations are included in the permitting process. For additional details, please refer to the <u>Webcast</u> beginning at 1:24:00.

There being no further requests to speak, the public comment period was closed for Agenda Item No. 27.

# PUBLIC HEARINGS

28. Determine That Proposed Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators, Is Exempt from CEQA and Adopt Rule 1165

Michael Morris, Planning and Rules Manager, gave the staff presentation on Agenda Item No. 28. For additional details, please refer to the <u>Webcast</u> beginning at 1:25:44.

The public comment period was opened for Agenda Item No. 28. The following individual addressed the Board.

Dr. Genghmun Eng expressed concerns that municipal solid waste incinerators are a source of dioxin emissions, and recommended that PR 1165 include requirements for dioxin control in the CEMs. He requested that the Board continue this item to the October meeting to allow staff to address additional public comments and offer an alternative proposal for the Board to consider. (Submitted Written Comments) For additional details, please refer to the <u>Webcast</u> beginning at 1:30:00.

There being no further requests to speak, the public comment period was closed for Agenda Item No. 28.

Supervisor Perez requested that staff respond to Mr. Eng's concerns regarding dioxins. Mike Krause, Assistant Deputy Executive Officer/Planning, Rule Development and Implementation, explained that dioxins are regulated under South Coast AQMD Rule 1401 and Rule 1402 as well as federal regulations that regulate dioxins from large municipal waste incinerators. These sources are also evaluated by South Coast AQMD staff during the permitting process. For additional details, please refer to the <u>Webcast</u> beginning at 1:33:10.

Executive Officer Nastri added that the only facility expected to be subject to PR 1165 is the Southeast Resource Recovery Facility (SERRF) and the facility is currently in the process of decommissioning and shutting down. U.S. EPA has requested a rule to address municipal waste incinerators in the event the facility does not shutdown or there is a new facility that is constructed. For additional details, please refer to the <u>Webcast</u> beginning at 1:34:33.

Councilmember Rodriguez asked about the final decommissioning date for SERRF and whether any future municipal solid waste incinerator facility would have to comply with PR 1165. Mr. Morris responded that the decommissioning of SERRF is scheduled for the beginning of next year. Executive Officer Nastri explained that new facilities would have to comply with Rule 1165 as well as New Source Review, which would be difficult for a new municipal solid waste incinerator facility to get permitted. For additional details, please refer to the Webcast beginning at 1:35:20.

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#### **Board Action (Item 28)**

MOVED BY HAGMAN AND SECONDED BY CACCIOTTI TO APPROVE AGENDA ITEM NO 28 AS RECOMMENDED AND ADOPT RESOLUTION NO. 24-23:

 DETERMINING THAT PROPOSED RULE 1165 – CONTROL OF EMISSIONS FROM MUNICIPAL SOLID WASTE INCINERATORS, IS EXEMPT FROM THE REQUIREMENTS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; AND 2) ADOPTING RULE 1165 – CONTROL OF EMISSIONS FROM MUNICIPAL SOLID WASTE INCINERATORS.

THE MOTION PASSED BY THE FOLLOWING VOTE:

- AYES: Cacciotti, Lock Dawson, Delgado, Hagman, McCallon, Perez, Rodriguez, and Solache
- NOES: None
- ABSENT: Do, Kracov, Mitchell, Padilla-Campos, and Raman

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29. Receive and File 2023 Annual Report on AB 2588 Program and Approve Updates to AB 2588 and Rule 1402 Supplemental Guidelines

Scott Epstein, Planning and Rules Manager, gave the staff presentation on Agenda Item No. 29. For additional details, please refer to the <u>Webcast</u> beginning at 1:36:45.

In response to Mayor Pro Tem McCallon's inquiry about the status of OEHHA's pending guidance on ethylene oxide, Dr. Epstein responded that staff did not have any information on when it will be released For additional details, please refer to the <u>Webcast</u> beginning at 1:46:59.

The public comment period was opened for Agenda Item No. 29. The following individual addressed the Board.

Harvey Eder commented on the data and number of deaths due to PM2.5 exposure and climate change. For additional details, please refer to the <u>Webcast</u> beginning at 1:47:49.

There being no further requests to speak, the public comment period was closed for Agenda Item No. 29.

#### Board Action (Item 29)

MOVED BY HAGMAN AND SECONDED BY PEREZ TO APPROVE AGENDA ITEM NO 29 AS RECOMMENDED TO:

- 1) RECEIVE AND FILE THE 2023 ANNUAL REPORT ON THE AB 2588 PROGRAM; AND
- 2) APPROVE UPDATES TO THE AB 2588 AND RULE 1402 SUPPLEMENTAL GUIDELINES

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES: Cacciotti, Lock Dawson, Delgado, Hagman, McCallon, Perez, Rodriguez, and Solache NOES: None

ABSENT: Do, Kracov, Mitchell, Padilla-Campos, and Raman

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#### **CLOSED SESSION**

The Board recessed to closed session at 10:48 a.m., pursuant to Government Code section 54957.6 to confer with labor negotiators:

Agency Designated Representative: A. John Olvera, Deputy Executive Officer – Administrative & Human Resources;

- Employee Organization(s): Teamsters Local 911, and South Coast AQMD Professional Employees Association; and
- Unrepresented Employees: Executive Officer, General Counsel, Designated Deputies and Management and Confidential employees.

Following closed session, Bayron Gilchrist, General Counsel, announced that a report of any reportable actions taken in closed session will be provided to the Clerk of the Boards.

#### ADJOURNMENT

There being no further business, the meeting was adjourned by Mr. Gilchrist at 11:03 a.m. The meeting was adjourned in memory of former Los Angeles Councilmember and California State Assemblymember Richard Alatorre.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on September 6, 2024.

Respectfully Submitted,

Faye Thomas Clerk of the Boards

Date Minutes Approved: \_\_\_\_\_

Vanessa Delgado, Chair

#### ACRONYMS

- AQMP = Air Quality Management Plan
- CARB = California Air Resources Board
- CEMS = Continuous Emission Monitoring System
- CEQA = California Environmental Quality Act
- FY = Fiscal Year
- MSRC = Mobile Source Air Pollution Reduction Review Committee
- OEHHA = Office of Environmental Health Hazard Assessment

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 2

- PROPOSAL: Set Public Hearings November 1, 2024 to Consider Adoption of and/or Amendments to South Coast AQMD Rules and Regulations:
  - A. <u>Determine That Proposed Amended Rule 1151 Motor</u> <u>Vehicle and Mobile Equipment Non-Assembly Line Coating</u> <u>Operations Does Not Require New Environmental Document:</u> <u>and Amend Rule 1151</u>

In 2018 and 2020, the California Office of Environmental Health Hazard Analysis determined that two compounds used in coatings and solvents, tert-Butyl Acetate (t-Bac) and para-Chlorobenzotrifluoride (pCBtF), have carcinogenic health effects. pCBtF and t-BAc are used in coatings and solvent that are regulated under Rule 1151. Proposed Amended Rule 1151 will phase out pCBtF and t-BAc, temporarily allow higher VOC limits while coatings are being reformulated, and add additional reporting requirements. This action is to adopt the Resolution: 1) Determining that Proposed Amended Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations is a later activity within the scope of the Final Program Environmental Impact Report for the 2022 AQMP such that no new environmental document is required; and 2) Amending Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations. (To Be Reviewed: Stationary Source Committee, October 18, 2024)

B. Determine That Proposed Amended Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, Is Exempt from CEQA; and Amend Rule 1173

Rule 1173 applies to refineries, chemical plants, oil and gas production fields, and others. Proposed Amended Rule 1173 will establish enhanced leak detection and repair requirements using optical gas imaging technology and more stringent control requirements including lower leak standards during selfinspection of most types of components. Amendments to Rule 1173 will address Community Emission Reduction Reduction objectives from the AB 617 community Wilimington, Carson, West Long Beach. The proposed amended rule will also include updated violation standards, streamlined repair schedules, and contingency measures to fulfill federal requirements. This action is to adopt the Resolution: 1) Determining that Proposed Amended Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, is exempt from the requirements of the California Environmental Quality Act, and 2) Amending Rule 1173. (Reviewed: Stationary Source Committee, August 16, 2024)

The complete text of the proposed rule, proposed amended rules, and other supporting documents were made available from the South Coast AQMD's Public Information Center at (909) 396-2001, or Mr. Derrick Alatorre – Deputy Executive Officer/Public Advisor, South Coast AQMD, 21865 Copley Drive, Diamond Bar, CA 91765, (909) 396-2432, <u>dalatorre@aqmd.gov</u> and on the Internet (<u>www.aqmd.gov</u>) as of October 1, 2024.

#### **RECOMMENDED ACTIONS:**

Set Public Hearings November 1, 2024 to: 1) Determine that Proposed Amended Rule 1151 is Exempt from CEQA and Amend Rule 1151; and 2) Determine that Proposed Amended Rule 1173 is Exempt from CEQA and Amend Rule 1173.

Wayne Nastri Executive Officer

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#### BOARD MEETING DATE: October 4, 2024

AGENDA NO. 3

- PROPOSAL: Recognize Revenue, Transfer and Appropriate Funds, Issue Purchase Orders, and Add Positions for Community Air Monitoring Near Refineries and Related Facilities
- SYNOPSIS: In January 2024, the Board amended Rule 1180 and adopted Rule 1180.1, which requires oil refineries, related facilities, and other refineries to fund the installation and operation of fenceline and community air monitoring systems. These actions are to recognize revenue of up to \$5,227,692 and up to \$2,309,469 for Rule 1180 and Rule 1180.1, respectively, into Rule 1180 Special Revenue Fund (78), transfer and appropriate up to \$1,455,400 to Monitoring and Analysis' FY 2024-25 and/or FY 2025-26 Budget, issue purchase orders for air monitoring shelters and vehicles, and add new positions for the planning and implementation of enhanced and additional community air monitoring.

COMMITTEE: Administrative, September 13, 2024; Recommended for Approval

# **RECOMMENDED ACTIONS:**

- 1. Recognize revenue upon receipt of up to \$5,227,692 and up to \$2,309,469 into Rule 1180 Special Revenue Fund (78) for Rule 1180 and Rule 1180.1 payments, respectively;
- 2. Upon receipt of funds, transfer and appropriate up to \$385,000 from Rule 1180 Special Revenue Fund (78) into Monitoring and Analysis' (MAD's) FY 2024-25 and/or 2025-26 Budget (Org 42), Capital Outlays Major Object, as indicated in Table 1;
- 3. Upon receipt of funds, transfer and appropriate up to \$200,000 from Rule 1180 Special Revenue Fund (78) into MAD's FY 2024-25 and/or 2025-26 Budget (Org 42), Services and Supplies Major Object, as indicated in Table 2;
- 4. Upon receipt of funds, transfer and appropriate up to \$870,400 from Special Revenue Fund (78) into MAD's FY 2024-25 Budget (Org 46), Salaries and Employee Benefits Major Object, as indicated in Table 3;
- 5. Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue a sole source purchase order for up to five air monitoring containers from Martin Container, Inc. (Martin Container) in an amount not to exceed \$135,000 as listed in Table 1;

- 6. Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue a purchase order based on solicitation or cooperative agreement, for up to five vehicles in an amount not to exceed \$250,000 as listed in Table 1; and
- 7. Approve the addition of ten positions for Rule 1180 and 1180.1 planning and implementation, as listed in Table 3.

Wayne Nastri Executive Officer

JCL:AP:OP:ld:ir:kdl

#### Background

Rule 1180 - Refinery Fenceline and Community Air Monitoring was adopted by the Board in December 2017 and requires all seven major refineries in the South Coast Air Basin (Basin) to measure the ambient levels of various air pollutants at their fenceline, and notify the public if the concentration of any measured pollutant is above predetermined threshold levels. Rule 1180 also establishes a fee schedule for these refineries to fund the installation, operation, and maintenance of community air monitoring stations, that are operated by South Coast AQMD, to provide air quality information and notifications to the public. The requirements of Rule 1180 apply to the following seven refineries:

- Tesoro Refining & Marketing Company, LLC, Carson;
- Tesoro Refining & Marketing Company, LLC, Wilmington;
- Torrance Refining Company, LLC, Torrance;
- Chevron Products Company, El Segundo;
- Phillips 66 Company, Los Angeles Refinery, Carson;
- Phillips 66 Company, Los Angeles Refinery, Wilmington; and
- Valero Wilmington Refinery (permitted as Ultramar, Inc.), Wilmington.

The Rule 1180 refinery fenceline and community air monitoring network has been in operation since January 2020. Novel optical remote sensing (ORS), automated gas chromatography, and traditional analyzers have been installed at multiple fenceline and community air monitoring sites, making this network the first of its kind in terms of complexity and technology deployed.

In January 2024 the Board approved amendments to Rule 1180, which includes additional air monitoring requirements for air toxic metals and particulate matter at the fenceline of the original seven Rule 1180 facilities. The amended rule also requires the development and installation of new fenceline air monitoring systems at the following refinery-related facilities:

- Air Products and Chemicals, Inc., Carson;
- Air Products and Chemicals, Inc., Wilmington;
- Tesoro Refining and Marketing Co., LLC (Sulfur Recovery Plant);
- Kinder Morgan Liquids Terminals, LLC; and
- Tesoro Logistics, Carson Crude Terminal

Also in January 2024 the Board adopted Rule 1180.1, which requires fenceline air monitoring for three other refineries in the Basin, namely:

- AltAir Paramount, LLC;
- LTR dba World Oil Refining; and
- Valero Wilmington Asphalt Plant

Rules 1180 and 1180.1 establish fee schedules to fund the addition of air toxic metals and particulate matter monitoring at community sites near the original seven Rule 1180 refineries, and the planning and implementation of community air monitoring stations near new facilities. Rule 1180 payments totaling \$3,765,960 from the seven major refineries for the implementation of metals and particulate matter monitoring will be received no later than January 31, 2025. Rule 1180 and 1180.1 payments totaling \$1,461,732 and \$2,309,469 respectively, from refinery-related facilities and other refineries for the planning and implementation of additional community air monitoring stations will be received in two installments no later than January 31, 2025, and January 31, 2026. The facilities subject to Rules 1180 and 1180.1 will also fund ongoing operation and maintenance of community air monitoring through future amendments to Rule 301 – Fees.

# Proposal

These actions are to recognize, upon receipt, up to \$5,227,692 and up to \$2,309,469 into the Rule 1180 Special Revenue Fund (78) for Rule 1180 and Rule 1180.1, respectively; transfer and appropriate up to \$385,000 into MAD's FY 2024-25 and/or 2025-26 Budgets (Org 42) Capital Outlays Major Object, as indicated in Table 1; transfer and appropriate up to \$200,000 into MAD's FY 2024-25 and/or 2025-26 Budgets (Org 42) Services and Supplies Major Object (as indicated in Table 2; transfer and appropriate up to \$870,400 into MAD's FY 2024-25 Budgets, Salaries and Benefits Major Object (Org 46), as indicated in Table 3; authorize the procurement manager to issue the purchase orders described below and listed in Table 1; and approve the addition of ten new staff positions for Rule 1180 and Rule 1180.1 community air monitoring planning and implementation, as listed in Table 3. As the community air monitoring plans for Rule 1180 and Rule 1180.1 are further developed, staff will request Board approval for additional transfers, appropriations from Rule 1180 Special Revenue Fund (78), and purchases for Capital Outlays and Services and Supplies.

# Proposed Purchase through Sole Source

# Air Monitoring Containers

These containers will be used to house air monitoring equipment at up to five new community air monitoring sites for Rule 1180 and Rule 1180.1 implementation. Martin Container is a small business located in Compton, California, that has extensive experience manufacturing shelters outfitted with specialized features for the purpose of air monitoring stations, such as inlet ports, electrical wiring and environmental controls required for advanced air monitoring equipment. All existing South Coast AQMD Rule 1180 community air monitoring containers are manufactured by this vendor, who is uniquely qualified to provide specialized containers that fully satisfy Rule 1180 and Rule 1180.1 requirements for community air monitoring. The cost for sole source purchase of these shelters will not exceed \$135,000 as listed in Table 1.

# Proposed Purchase through Solicitation or Cooperative Agreement

# Vehicles

Vehicles transport staff to perform the installation, calibration, maintenance, and repair of air monitoring equipment at community air monitoring stations. Vehicles will be selected through a solicitation process or cooperative purchasing agreement. Low and zero-emission vehicles are available from vendors through cooperative purchasing under the State of California, Department of General Services, Procurement Division, and Alternative Fueled Vehicles Contract 1-22-23-23 A through I. Preference would be given to hybrid or zero-emission models, based on availability of suitable vehicles. The cost of up to five vehicles will not exceed \$250,000 as listed in Table 1.

# Proposed Staffing Additions

This action is to approve the addition of ten positions for Rule 1180 and Rule 1180.1 as listed in Table 3, to support the additional community air monitoring requirements. The staff will be responsible for the planning, installation, operations, and data management of the community air monitoring stations and also addressing programmatic and administrative needs. New staffing positions will be filled in stages, as needed.

# **Sole Source Justification**

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. The request for sole source purchases of air monitoring containers from Martin Container is under Section VIII.B.2.d (6): Projects requiring compatibility with existing specialized equipment. Martin Container is a small local business that is an established vendor with South Coast AQMD, has supplied air monitoring containers compatible with existing air monitoring stations and equipment, and has provided reliable services to support air monitoring efforts for the last decade.

# Benefits to South Coast AQMD

The additional staffing and equipment for implementation of Rule 1180 and Rule 1180.1 will allow South Coast AQMD to fulfill the requirements of this fenceline and community air monitoring program. This will result in benefits to environmental justice communities and people working and residing in the Basin near refineries and related facilities.

#### **Resource Impacts**

Initial and final payments required from petroleum refineries, related facilities, and other refineries under Rule 1180 and Rule 1180.1 provide sufficient funding for additional community air monitoring, including the new staffing needed to properly implement the Rules. Future amendments to Rule 301 will provide resources for ongoing community air monitoring operation and maintenance near facilities subject to Rule 1180 and 1180.1.

Table 1FYs 2024-25 and/or 2025-26Proposed Capital Outlays Expenditures for Rule 1180 and 1180.1

Description	Qty	Appropriation from Prior Years Budget Savings	Procurement Method
Air Monitoring Containers*	Up to 5	\$135,000	Sole Source
Vehicles	Up to 5	\$250,000	Solicitation or Cooperative Agreement
Total		Up to \$385,000	

\*Expenditures may be appropriated as Services & Supplies or Capital Outlays Major Object, as warranted.

# Table 2FY 2024-25 and/or FY 2025-26Proposed Services and Supplies Expenditures for Rule 1180 and 1180.1

Description	Account Number	Estimated Amount*
Rents and Leases Structure	67350	\$20,000
Professional and Specialized Services	67450	\$50,000
Auto Mileage	67700	\$5,000
Office Expense*	68100	\$35,000
Office Furniture*	68200	\$50,000
Small Tools, Instruments, Equipment*	68300	\$40,000
Total		Up to \$200,000

\*Expenditures may be appropriated as Services & Supplies or Capital Outlays Major Object, as warranted.

# Table 3FY 2024-25 and/or FY 2025-26Proposed Appropriations for Staffing Additions for Rule 1180 and 1180.1

Position Title	Qty	Estimated Amount*
Administrative Assistant I	1	\$53,993
Air Quality Instrument Specialist II	3	\$230,626
Principal Air Quality Instrument Specialist	1	\$90,943
Air Quality Specialist	3	\$282,756
Senior Staff Specialist	1	\$100,528
Program Supervisor	1	\$111,554
Total	10	Up to \$870,400

\*Estimate is for 6 months Salaries & Employee Benefits at Step 5 which includes base salary, retirement cost, insurance, FICA, and SDI.

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 4

- PROPOSAL: Recognize Revenue, Appropriate Funds, Issue Solicitation and Purchase Order for Air Monitoring Shelter
- SYNOPSIS: South Coast AQMD previously received a Federal grant award from U.S. EPA under the Inflation Reduction Act. This action is to recognize the remaining balance of up to \$101,972 and appropriate these funds into the Monitoring and Analysis Division's FY 2024-25 Budget and issue a solicitation and purchase order for an air monitoring shelter.

# COMMITTEE: Administrative, September 13, 2024; Recommended for Approval

# **RECOMMENDED ACTIONS:**

- 1. Recognize revenue up to \$101,972 upon receipt from U.S. EPA and appropriate the funds into the Monitoring and Analysis Division's (MAD's) FY 2024-25 Budget (Org 47) as detailed in the Attachment; and
- 2. Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue "Prior Bid, Last Price" or Solicitation as needed and based on results of the solicitation process, issue a purchase order for an air monitoring shelter.

Wayne Nastri Executive Officer

JCL:AP:RMB:ld:ir:eq

#### Background

#### Inflation Reduction Act (IRA)

On August 16, 2022, Congress passed the IRA, providing support for U.S. EPA to fund state and local government air pollution control agency air monitoring network upgrades through a noncompetitive grant process. This funding supports activities including operation of the criteria pollutant air monitoring network under the Clean Air Act Section 103 which allows U.S. EPA to make grants available for research and measurements related to the causes, effects, prevention and control of air pollution. U.S. EPA initially provided grant funding of \$655,042 for the IRA program in Federal FY 2023 and was extended through Federal FY 2025.

# Proposal

U.S. EPA IRA Grant award includes funding to maintain the South Coast AQMD's ambient air monitoring network including air monitoring shelters. U.S. EPA requires criteria pollutant measurements be made in a temperature-controlled environment to support compliance with NAAQS and emissions strategy development. The shelter for the San Bernardino air monitoring site has difficulty maintaining U.S. EPA's Quality Control temperature requirements and needs to be replaced. The replacement is critical to meeting the data completeness requirement and providing air quality data to U.S. EPA and the public. The estimated cost for an air monitoring shelter is \$101,972. The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

This action is to recognize revenue (remaining balance) upon receipt and appropriate up to \$101,972 from U.S. EPA into MAD's (Org 47) FY 2024-25 Budget, as set forth in the Attachment.

#### **Resource Impacts**

No resource impact to South Coast AQMD as U.S. EPA IRA grant funding will support the purchase of a needed air monitoring shelter to meet the federal monitoring requirements.

### Attachment

FY 2024-25 Proposed IRA Expenditure

# Attachment

Account Description	Org Unit	Account Number	Program Code	Estimated Expenditure*
Capital Outlay Major Object:				
Air Monitoring Shelter	47	77000	47242	\$101,972
Total Capital Outlay Major Object:				\$101,972

# FY 2024-25 Proposed IRA Expenditure

\*Expenditure may be appropriated in Services and Supplies and/or Capital Outlays Major Objects as warranted.

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 5

- PROPOSAL: Issue Solicitations and Purchase Orders for Air Monitoring and Laboratory Equipment
- SYNOPSIS: South Coast AQMD FY 2024-25 Annual Budget approved the purchase of air monitoring and laboratory equipment. This action is to issue solicitations and purchase orders for air monitoring and laboratory equipment.
- COMMITTEE: Administrative, September 13, 2024; Recommended for Approval

# **RECOMMENDED ACTION:**

Authorize the Procurement Manager, in accordance with South Coast AQMD's Procurement Policy and Procedure, to issue "Prior Bid, Last Price" purchase orders, sole source purchase order, or solicitations as needed, and based on the results, issue purchase orders for the air monitoring and laboratory equipment listed in Table 1 for an estimated amount of \$328,500.

Wayne Nastri Executive Officer

JCL:AP:SD:ld:ir:cd

# Background

In May 2024, the Board approved the Executive Officer's Proposed Goals and Priority Objectives and Proposed Budget for FY 2024-25. The adopted budget includes capital outlay funds in the amount of \$328,500 for the procurement of equipment and instrumentation to support the Monitoring and Analysis division's air monitoring and compliance analysis efforts. A significant number of the lead samplers and sulfur dioxide monitors in the South Coast AQMD air monitoring network are more than fifteen years old and have exceeded their usable lifetime. Similarly, the equipment and instrumentation used for laboratory analyses and source testing is greater than ten years old and is no longer supported by the manufacturer. It is critical that South Coast AQMD maintains and replaces equipment to meet U.S. EPA quality assurance criteria and to ensure that the appropriate equipment and supplies are available to maintain sampling, laboratory analyses, and stack testing.

# Proposal

# Gas Diluters

South Coast AQMD operates 27 ozone and nitrogen dioxide sites in support of the criteria pollutant monitoring network. Daily precision zero and span audits of gas monitors are required to meet U.S. EPA quality assurance criteria. Gas dilution systems are necessary to provide a known concentration of gas standard required for quality control (QC) of air monitoring equipment. The current gas dilution systems are greater than 10 years old and no longer meet U.S. EPA QC requirements. The replacement gas diluters meet U.S. EPA requirements as outlined in the most recent ozone Technical Assistance Document. The estimated cost for up to four gas diluters is \$108,500 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# High Volume Lead Samplers

South Coast AQMD operates seven Lead monitoring sites in support of the criteria pollutant monitoring network. The current Lead samplers are more than 15 years old and need replacement. The estimated cost for up to three high volume Lead samplers is \$20,000 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# Sulfur Dioxide Monitors

South Coast AQMD operates four Sulfur Dioxide (SO<sub>2</sub>) monitors in support of the criteria pollutant monitoring network. The current samplers are more than 15 years old and need replacement. The estimated cost for up to two SO<sub>2</sub> monitors is \$34,000 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# Hydrogen Sulfide Monitor

South Coast AQMD operates two Hydrogen Sulfide ( $H_2S$ ) monitoring locations in the Coachella Valley. The current  $H_2S$  monitors are more than ten years old and need replacement. The estimated cost for one  $H_2S$  monitor is \$22,000 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# Acid System Centrifuge

South Coast AQMD's laboratory performs metals analysis in support of various monitoring networks and special projects. Critical to metals analysis is the acid system centrifuge. The current centrifuge is approximately ten years old and in need of replacement. The estimated cost for a centrifuge is \$25,000 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# Precision Zero Air Generator

Precision zero air generators are necessary to deliver contaminant-free air required for the operation of air monitoring equipment in support of criteria pollutant measurements and audit requirements. The estimated cost for one zero air generator is \$10,000 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# Portable Combustion Gas Analyzer

The FY 2024-25 Budget includes funding for the purchase of one portable combustion gas analyzer. A portable combustion gas analyzer is required to continuously measure stack emissions in the field. The unit employs reference methods for determination of NOx, CO, carbon dioxide, SO<sub>2</sub> and oxygen. This instrument will replace an existing analyzer. The estimated cost for one portable combustion gas analyzer is \$35,000 (see Table 1). The purchase will be made by "Prior Bid, Last Price" or through a solicitation process, as needed, followed by issuance of a purchase order.

# Proposed Purchases through Sole Source Purchase Order

# Agilaire 8872 Data Loggers

South Coast AQMD's air monitoring network operates 34 air monitoring sites utilizing data loggers as part of U.S. EPA's minimum monitoring requirement to support compliance with NAAQS and emissions strategy development and to provide air pollution data to the public in a timely manner. The monitoring site data loggers are greater than 15 years old and will no longer be supported by the manufacturer beyond the most recent Windows 10 upgrade. Data loggers are used for real time reporting of air quality data to U.S. EPA and CARB and is converted to AQI values for the public. The technical specifications of the new data loggers are proprietary and consistent with the existing South Coast AQMD air monitoring network. The approximate cost for up to three data loggers is \$39,000 (see Table 1).

# Polarized Light Microscope

The FY 2024-25 Budget includes funding for the purchase of one polarized light microscope to support enforcement and compliance under Rule 1403 - Asbestos Emissions from Demolition/Renovation Activities. The microscope used for this analysis is no longer supported by the manufacturer and needs replacement. The estimated cost for one polarized light microscope is \$35,000, as approved in the FY 2024-25 Adopted Budget (see Table 1). The purchase will be made by a sole source purchase order with The McCrone Group.

# **Sole Source Justifications**

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified: Sole source award request for the Agilaire 8872 Data Loggers and Polarized Light Microscope are made under VIII.B.2.d (6): Projects requiring compatibility with existing specialized equipment. The monitoring network exclusively uses Agilaire components for compatibility, and the laboratory exclusively uses Nikon microscopes, as they have a demonstrated track record for performance, ease of use, and longevity. To facilitate staff training and allow for the interoperability of parts and components, the replacement microscope must be of the same type. The McCrone Group is the only vendor that sells this microscope in the United States.

#### **Resource Impacts**

Funding to purchase the air monitoring and laboratory equipment outlined in this Board letter is available in the FY 2024-25 Adopted Budget.

Description	Qty	Estimated Amount*	Contracting Method
Gas Diluters	Up to 4	\$108,500	"Prior Bid, Last Price" or Solicitation Process
High Volume Pb Samplers	Up to 3	\$20,000	"Prior Bid, Last Price" or Solicitation Process
Sulfur Dioxide Monitors	Up to 2	\$34,000	"Prior Bid, Last Price" or Solicitation Process
Hydrogen Sulfide Monitor	1	\$22,000	"Prior Bid, Last Price" or Solicitation Process
Acid System Centrifuge	1	\$25,000	"Prior Bid, Last Price" or Solicitation Process
Precision Zero Air Generator	1	10,000	"Prior Bid, Last Price" or Solicitation Process
Portable Combustion Gas Analyzer	1	\$35,000	"Prior Bid, Last Price" or Solicitation Process
Agilaire 8872 Data Loggers	Up to 3	\$39,000	Sole Source
Polarized Light Microscope	1	\$35,000	Sole Source
Total		\$328,500	

Table 1FY 2024-25 Capital Outlays Major Object

\*Expenditures may be appropriated in Services and Supplies and/or Capital Outlays Major Objects as warranted.

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#### BOARD MEETING DATE: October 4, 2024

AGENDA NO. 6

- PROPOSAL: Appropriate Funds and Amend Contract to Implement Air Quality Community Training and Provide Air Filtration Systems in Eastern Coachella Valley for U.S. EPA State Environmental Justice Cooperative Agreement Program
- SYNOPSIS: U.S. EPA awarded South Coast AQMD a grant from the State Environmental Justice Cooperative Agreement Program to implement an Air Quality Academy to improve environmental literacy and air quality data in the Assembly Bill 617 community of Eastern Coachella Valley. The Air Quality Academy was established in 2021 and South Coast AQMD proposes to spend the remaining funds to provide air filtration systems and additional training to operate the air filtration systems and reduce exposure to air pollution within residential homes in Eastern Coachella Valley. South Coast AQMD requested a one-year no-cost extension and received approval from U.S. EPA to reallocate funding to continue implementation until October 31, 2025. These actions are to appropriate up to \$45,052 to the Diversity, Equity and Inclusion with Community Air Programs Office FY 2024-25 and/or 2025-26 Budgets, and to amend an existing contract with Desert Healthcare District and Foundation.

COMMITTEE: Administrative, September 13, 2024; Recommended for Approval

#### **RECOMMENDED ACTIONS:**

 Appropriate up to \$45,052 from the General Fund Undesignated (Unassigned) Fund Balance to the Diversity, Equity and Inclusion with Community Air Programs Office FY 2024-25 and/or 2025-26 Budget (Org 70), Services & Supplies Major Object, Professional & Special Services account (67450) for the U.S. EPA State Environmental Justice Cooperative Agreement project; and 2. Upon receipt of an amended grant agreement, authorize the Executive Officer to amend an existing contract with Desert Healthcare District and Foundation to implement community training and provide air filtration systems in Eastern Coachella Valley.

Wayne Nastri Executive Officer

#### AHJ:PP:BK:PM

#### Background

In June 2021, U.S. EPA granted South Coast AQMD an award of \$200,000 from the U.S. EPA State Environmental Justice Cooperative Agreement Program to partner with local entities to develop an Air Quality Academy in Eastern Coachella Valley. On October 1, 2021, the Board recognized \$200,000 and approved appropriations of \$113,091 to Planning, Rule Development & Implementation, Science & Technology Advancement, and Legislative, Public Affairs and Media Office into FY 2021-22 and/or FY 2022-23 Budgets from the U.S. EPA State Environmental Justice Cooperative Agreement Program.

South Coast AQMD has been working with Desert Healthcare District and Foundation, Alianza Coachella Valley (Desert Healthcare District and Foundations' subcontractor), and Health Assessment and Research for Communities to implement tasks outlined in the grant. To date, Alianza Coachella Valley has recruited 15 Eastern Coachella Valley community members for the Air Quality Academy and participated in the air quality training and workshops. Health Assessment and Research for Communities has also analyzed community data (e.g., environmental, demographic) to complete a community Environmental Health Report. This project builds upon existing efforts to implement the Assembly Bill 617 (AB 617) Eastern Coachella Valley Community Emission Reductions Plan, specifically objectives committing South Coast AQMD to reduce exposure to air pollution in homes (Chapter 5b, Objective 3A; Chapter 5c, Objective 2C; Chapter 5d, Objective 3B; Chapter 5e, Objective 3C; and Chapter 5f, Objective 1A).

The project was scheduled to end on October 31, 2024. However, in June 2024, U.S. EPA approved a no-cost extension until October 31, 2025. Additionally, U.S. EPA approved a non-competitive proposal to issue a sole source contract amendment with Desert Healthcare District and Foundation. This action is seeking approval from the Board to appropriate the remaining funds and amend the contract to provide additional air quality community training and purchase air filtration systems that will be distributed to residents in Eastern Coachella Valley. This additional effort supplements this project by improving environmental literacy and reducing indoor air pollution and will build on the existing AB 617 Air Filtration Program for Eastern Coachella Valley.

Appropriations requested in this Board Letter reflect the project scope change approved by U.S. EPA and supersedes FY 2024-25 appropriations authorized in the September 2023 Board Letter.

# Proposal

This action is to appropriate up to \$45,052 in U.S. EPA State Environmental Justice Cooperative Agreement funds from the General Fund Undesignated (Unassigned) Fund Balance to the Diversity, Equity and Inclusion with Community Air Programs Office FY 2024-25 and/or 2025-26 Budget (Org 70), Services & Supplies Major Object, Professional & Special Services account (67450) to amend Desert Healthcare District and Foundations' contract to procure related services and supplies. Approval of these actions will allow South Coast AQMD to continue implementing the Air Quality Academy in Eastern Coachella Valley and provide air filtration systems to reduce exposure to air pollution within residential homes in Eastern Coachella Valley.

# **Sole Source Justification**

Section VIII.B.3 of the Procurement Policy and Procedure identifies four major provisions for justifying a sole source award funded, in whole or in part with federal funds. The request for sole source awards for the amendment of Desert Healthcare District and Foundations' contract and the purchase of 15 air filtration systems are made under the provisions B.3.c, which states that the awarding federal agency or pass-through entity expressly authorizes non-competitive proposals in response to a written request from the non-federal entity. U.S. EPA provided written authorization for a non-competitive sole source justification to Desert Healthcare District and Foundation to continue as the contractor to implement community training and provide air filtration systems in Eastern Coachella Valley.

## Benefits to South Coast AQMD

This work complements the ongoing efforts to partner with the community to address local air quality priorities through the AB 617 program, including providing training and education and air filtration systems to reduce air pollution exposure and emissions in Eastern Coachella Valley. This project will continue to strengthen South Coast AQMD's collaborative partnerships in Eastern Coachella Valley and improve environmental literacy in these rural communities. Additionally, this project can serve as a model for future outreach and educational programs in this region.

# **Resource Impacts**

The U.S. EPA State Environmental Justice Cooperative Agreement Program funding supports the Air Quality Academy project in the Eastern Coachella Valley.

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AGENDA NO.	7

#### BOARD MEETING DATE: October 4, 2024

PROPOSAL: Authorize Purchase of ESRI Enterprise Agreement

**SYNOPSIS** South Coast AQMD currently uses Environmental Systems Research Institute, Inc. (ESRI) products for a wide range of geospatial services and the management and sharing of geographic information. These products support various enterprise-level applications and provides visual geospatial tools to enhance our communication with the public. The demand for access to ESRI products and services has outpaced the licenses available under South Coast AQMD's current agreement with ESRI. The new agreement will include additional product services, a substantial increase in the number of licenses, and enhanced support from ESRI. This action authorizes the purchase of a ESRI Enterprise Agreement for a period of three years, at an amount not to exceed \$185,000 per year. Funds for the first year's purchase are included in Information Management's FY 2024-25 budget, with funds for subsequent years to be included in future budget requests.

COMMITTEE: Administrative, September 13, 2024; Recommended for Approval

## RECOMMENDED ACTION:

Authorize the Procurement Manager to purchase an Environmental Systems Research Institute, Inc. (ESRI) Enterprise Agreement and to execute all documents for this purchase for a period of three years.

> Wayne Nastri Executive Officer

RMM:HL;mf

#### Background

South Coast AQMD has been utilizing ESRI software for a variety of critical applications that support its mission. ESRI is the world's leading supplier of Geographic Information System (GIS) software, web GIS, and geodatabase management applications. These capabilities are crucial for enabling the public to visualize the work of South Coast AQMD.

ESRI software is essential for generating Air Quality Index maps that are prominently featured on South Coast AQMD's website and mobile applications, providing valuable air quality information to the public. Additionally, ESRI software is integral to the Facility Information Database, Flare Event Notification System (FENS), AB 617 Data Monitoring Website and Dashboard, Rule 1180 Data Monitoring Website, Online Application Filing Portal, and many other enterprise-level applications. ESRI products are also used across multiple divisions, including Compliance and Enforcement, Engineering and Permitting, Planning, Rule Development & Implementation, Monitoring and Analysis, and Information Management for critical modeling, data analysis, and forecasting tasks in support of important programs and initiatives such as AB 617 Community Air Monitoring, FENS Line Monitoring, and MATES. These applications and programs rely on the robust mapping and spatial analysis capabilities provided by ESRI software. The demand for access to ESRI products and services has outpaced the licenses available under South Coast AQMD's current agreement with ESRI.

Currently, South Coast AQMD purchases ESRI licenses at an annual cost of \$83,760, in addition to \$70,900 for the ESRI Advantage Program. The ESRI Advantage Program provides premium support services, including technical support, training, and consulting services, helping organizations maximize their use of ESRI software. The new Enterprise Agreement will consolidate these expenses, add additional product services, provide a substantial increase in the number of licenses available for South Coast AQMD staff to help address the excess demand, and offer comprehensive access to ESRI tools and services under a single contract. To highlight several notable enhancements, for an additional annual cost of \$30,340 under the Enterprise Agreement, South Coast AQMD will gain access to 70 additional licenses for map creation and updates, as well as over 87,000 service credits to facilitate the publishing and maintenance of our map systems. Most importantly, this agreement will provide an additional 149 field worker licenses. These licenses will enable the automation of mobile fieldwork for compliance staff, representing a significant advancement in the agency's efforts to modernize its compliance workflow. Furthermore, this agreement offers South Coast AQMD discounted unit prices for the licenses and locks in these discounted rates for three years, thereby avoiding the average 5% annual increase. This package will substantially increase capability and scale while delivering improved cost efficiency.

## Proposal

In accordance with South Coast AQMD's Administrative Policies and Procedures, this proposal seeks authorization to enter into a three-year ESRI Enterprise Agreement. This agreement will ensure continued access to the comprehensive suite of ESRI tools and services that are vital to South Coast AQMD's operations. The total cost of the three-year agreement will not exceed \$555,000, with an annual cost of \$185,000.

# **Sole Source Justification**

Section VIII.B.2 of the Procurement Policy and Procedure identifies circumstances under which a sole source purchase award may be justified. This request for a sole source award is made under provision VIII.B.2.c.(2) and (3). The products and services are available from only the sole source; involve the use of proprietary technology; and use key contractor-owned assets for project performance.

# **Resource Impacts**

Sufficient funding is available in Information Management's FY 2024-25 Budget. Funding for subsequent fiscal years will be requested and budgeted appropriately.



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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 8

PROPOSAL: Approve Contract Award as Approved by MSRC

- SYNOPSIS: The MSRC approved a contract with Better World Group Advisors for programmatic outreach services for the MSRC. The MSRC seeks Board approval of the contract award as part of the FYs 2024-27 Work Program.
- COMMITTEE: Mobile Source Air Pollution Reduction Review, September 19, 2024; Recommended for Approval

# **RECOMMENDED ACTIONS:**

- 1. Approve a contract with Better World Group Advisors, in an amount not to exceed \$300,000, for programmatic outreach services for the MSRC for a three-year period, with an option for an additional two-year period subject to future approval by the MSRC and South Coast AQMD Board, as part of approval of the FYs 2024-27 Work Program, as described in this Board Letter;
- 2. Authorize the MSRC to increase the contract award up to five percent, as necessary and previously granted in prior Work Programs; and
- 3. Authorize the Chair (or the Chair's designee) to execute the contract under the FYs 2024-27 Work Program, as described above and in this Board Letter.

Larry McCallon Committee Chair, MSRC

AK:CR

#### Background

In September 1990, Assembly Bill 2766 was signed into law (Health & Safety Code Sections 44220–44247) authorizing an annual \$4 motor vehicle registration fee to fund the implementation of programs exclusively to reduce air pollution from motor vehicles. AB 2766 provides that 30 percent of the annual \$4 vehicle registration fee subvened to South Coast AQMD be placed into an account to be allocated pursuant to a work program developed and adopted by the MSRC and approved by the Board.

## Proposal

At its September 19, 2024 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

# Programmatic Outreach Services

The MSRC released a Request for Proposals for the solicitation of Programmatic Outreach Services on May 3, 2024. The RFP established a funding target level not to exceed \$300,000 for an initial three-year period, with an option clause for another twoyear period. The selected contractor would assist in promoting the MSRC's Clean Transportation Funding<sup>™</sup> programs as well as providing outreach assistance to current and prospective MSRC project implementers. Due to an error in the publication process, the notice for the RFP was not published when originally intended. To remedy this situation, the deadline was extended to July 10, 2024 and the notice was published. A total of four proposals were received by the deadline. One proposal was deemed nonresponsive. The remaining proposals were reviewed by a panel comprised of members of the MSRC's Technical Advisory Committee. The MSRC approved a contract award to Better World Group Advisors in an amount not to exceed \$300,000 for the base three-year period as part of the FYs 2024-27 Work Program, with an option clause for an additional two-year period subject to future approval by the MSRC and South Coast AQMD Board.

# **Outreach**

In accordance with South Coast AQMD's Procurement Policy and Procedure, public notices advertising the Programmatic Outreach Services RFP were published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise to leverage the most cost-effective method of outreach to the South Coast Basin. Additionally, potential bidders may have been notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the RFP was emailed to the diverse spectrum of Legislative Caucuses and chambers of commerce and business associations and placed on South Coast AQMD's website (<u>http://www.agmd.gov</u>), where it could be viewed by making the selection "Grants and Bids." Further, the RFP was posted on the MSRC's website at http://www.cleantransportationfunding.org and electronic notifications were sent to those subscribing to this website's notification service.

At this time, the MSRC requests that the South Coast AQMD Board approve the contract award as part of approval of the FYs 2024-27 Work Program as outlined above.

## **Resource Impacts**

South Coast AQMD acts as fiscal administrator for the AB 2766 Discretionary Fund Program (Health & Safety Code Section 44243). Money received for this program is recorded in a special revenue fund (Fund 23) and the contract specified herein will be drawn from this fund.

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 9

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the August 2024 outreach activities of the Legislative, Public Affairs and Media Office, which includes Major Events, Community Events/Public Meetings, Environmental Justice Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Small Business Assistance, Media Relations, and Outreach to Community Groups and Federal, State and Local Governments.

COMMITTEE: No Committee Review

RECOMMENDED ACTION: Receive and file.

Wayne Nastri Executive Officer

DA:LT:AL:DS:Bel:cb:sr

#### Background

This report summarizes the activities of the Legislative, Public Affairs and Media Office for August. The report includes Major Events, Community Events/Public Meetings, Environmental Justice (EJ) Updates, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Small Business Assistance, Media Relations, and Outreach to Community Groups and Governments.

#### Major Events (Hosted and Sponsored)

Each year, staff engage in hosting and sponsoring several major events throughout South Coast AQMD's four-county jurisdiction to promote, educate, and provide important information to the public regarding reducing air pollution, protecting public health, and improving air quality while minimizing economic impacts.

There were no major events hosted or sponsored in August.

# **Community Events/Public Meetings**

Staff engaged with residents and stakeholders of diverse communities to provide information about the agency, incentive programs, and ways individuals can help reduce air pollution through events and meetings sponsored by South Coast AQMD or in partnership with others. Attendees typically receive information regarding the following:

- Tips on reducing their exposure to smog and its negative health effects;
- How to file a complaint;
- Clean air technologies and their deployment;
- Invitations to or notices of conferences, seminars, workshops, and other public events;
- South Coast AQMD incentive programs;
- Funding/grant opportunities by South Coast AQMD and partner agencies;
- Ways to participate in South Coast AQMD's rules and policy development; and
- Assistance in resolving air pollution-related problems.

Staff attended and/or provided information and updates at the following August events and meetings:

## Arroyo Verdugo Communities Joint Powers Authority

On August 1, staff participated at the Arroyo Verdugo Communities Joint Powers Authority Governing Board meeting to provide information on the AB 2766 Motor Vehicle Subvention Program.

## 25th Annual Community Resource Fair

On August 3, staff participated in the 25<sup>th</sup> Annual 41<sup>st</sup> Assembly District Community Resource Fair and Block Party to provide community members information on the South Coast AQMD Mobile App, how to file a complaint, Residential Electric Lawn Mower Rebate Program, and the upcoming EJ Conference.

## Healthy Jurupa Valley

On August 6, staff attended the Healthy Jurupa Valley meeting to announce the upcoming 10<sup>th</sup> Annual EJ Conference.

## Orange County Council of Governments

On August 6, staff participated in the Orange County Council of Governments (OCCOG) Infrastructure Committee meeting to provide information on U.S. EPA's Climate Pollution Reduction Grant (CPRG) award for zero-emission goods movement in the South Coast region and thanked OCCOG for their letter of support.

#### La Habra Area Chamber of Commerce

On August 7, staff met with the La Habra Area Chamber of Commerce President/Chief Executive Officer to share air quality programs and resources such as free technical assistance offered by through the Small Business Assistance Office.

#### San Bernardino County Second District Open House

On August 8, staffed participated in the San Bernardino County Second District Open House. Staff demonstrated a clean air vehicle and shared information on how to file a complaint.

#### **Community Connections**

On August 8, staff participated in Riverside Community Connections to provide an overview on South Coast AQMD, air quality issues, how to file a complaint, and the South Coast AQMD Mobile App.

#### Big Bear Chamber of Commerce

On August 8, staff attended the Big Bear Chamber of Commerce Government Affairs Committee meeting to provide an update on Rule 1146.2 - Emissions of Oxides of Nitrogen from Large Water Heaters, Small Boilers, and Process Heaters (Rule 1146.2). Information on recent smoke advisories was also shared with the Committee.

#### South Pasadena Chamber of Commerce

On August 14, staff participated in the South Pasadena Chamber of Commerce Legislative Affairs Committee meeting to provide updates on the Carl Moyer program, Rule 2306 – Freight Rail Yards (Rule 2306), and the upcoming 10<sup>th</sup> Annual EJ Conference.

#### Inglewood City Council

On August 13, staff attended the Inglewood City Council meeting to provide an update on Rule 2306.

## El Segundo Main Streetcar Show

On August 17, staff participated in the 26<sup>th</sup> Annual El Segundo Main Street Car Show to provide community outreach on how to file complaints, the South Coast AQMD Mobile App, Residential Electric Lawn Mower Rebate program, and wildfire health and safety tips.

#### South Bay Cities Council of Governments

On August 22, staff attended the South Bay Cities Council of Governments Board of Directors meeting to provide updates on Rule 2306 and the Carl Moyer Program.

#### **Riverside County Board of Supervisors**

On August 27, staff attended the Riverside County Board of Supervisors meeting to provide information on Rule 1146.2.

# City of Bell

On August 28, staff attended the Bell City Council meeting to provide updates on Rule 1146.2 and the upcoming 10<sup>th</sup> Annual EJ Conference.

# **Environmental Justice Update**

The following are key EJ related activities in which staff participated during August. These events and meetings involve communities affected disproportionately from adverse air quality impacts.

# East Yard Communities for Environmental Justice (EYCEJ)

On August 2, staff met with EYCEJ staff to discuss South Coast AQMD's 10<sup>th</sup> Annual EJ Conference.

# Community Hub of Santa Ana

On August 7, staff met with Community Hub of Santa Ana to provide information on our educational programs, Clean Air Program for Elementary Students (CAPES) and Why Health Air Matters (WHAM), and the 10<sup>th</sup> Annual EJ Conference.

# U.S. EPA Asthma Webinar Series

On August 14, staff participated in U.S. EPA's Asthma webinar. Topics of discussion included risks associated with wildfire smoke, solutions for protecting people with asthma and others at risk, and air filtration, environmental education, and in-home counseling to support those affected by air pollution from wildfires.

# California Safe Schools

On August 15, staff met with California Safe Schools and provided an update on CAPES, WHAM, and the 10<sup>th</sup> Annual EJ Conference.

# Mission Bell Elementary School

On August 22, staff visited Mission Bell Elementary School to provide information about CAPES.

# Environmental Justice Advisory Group

South Coast AQMD hosted the third quarterly Environmental Justice Advisory Group meeting on August 30. Presentations included an overview on "Go Zero" which is South Coast AQMD's residential and commercial building appliances pilot program and an update by SCAG on the Comprehensive Climate Action Plan under development through the U.S. EPA CPRG program for the Los Angeles – Long Beach – Anaheim area.

# **Speakers Bureau/Visitor Services**

South Coast AQMD regularly receives requests for staff to speak on air quality-related issues from a wide variety of organizations, such as trade associations, chambers of commerce, community-based groups, schools, hospitals, and health-based organizations. South Coast AQMD also hosts visitors from around the world who meet with staff on a wide range of air quality issues.

# National Institute of Environmental Research, South Korea

On August 30, South Coast AQMD welcomed a delegation from the National Institute of Environmental Research in South Korea. The visit included a tour of the lab and presentations on fenceline and community air monitoring programs.

# **Communication Center Statistics**

The Communication Center handles calls on South Coast AQMD's main line, 1-800-CUT-SMOG®, the Spanish line, and after-hours calls to those lines. Total calls received in the month of August are summarized below:

Calls to South Coast AQMD's Main Line and 1-800-CUT-SMOG®	2,715
Calls to South Coast AQMD's Spanish Line	24
Clean Air Connections	4
Total Calls	2,743

# **Public Information Center Statistics**

The Public Information Center (PIC) handles phone calls and assists individuals who walk in for general information. Email advisories provide information on upcoming meetings and events, program announcements and alerts on time-sensitive issues. Information for the month of August is summarized below:

Calls Received by PIC	72
Calls to Automated System	209
Total Calls	281
Visitor Transactions	185
Email Advisories Sent	25,683

# **Small Business Assistance**

South Coast AQMD notifies local businesses of proposed regulations so they can participate in the agency's rule development process. South Coast AQMD works with other agencies and governments to identify efficient, cost-effective ways to reduce air pollution and shares that information broadly. Staff provided personalized assistance to small businesses over the telephone, at South Coast AQMD headquarters and via virtual on-site consultation, as summarized below for August.

- Provided permit application assistance to 280 companies, and
- Processed 147 Air Quality Permit Checklists.

Types of businesses assisted:

Architecture Firms	Gas Stations	Schools
Auto Body Shops	Manufacturing Facilities	Warehouses
Construction Firms	Offices	
Dry Cleaners	Restaurants	
Engineering Firms	Retail Facilities	

# Media Relations

The Media Office handles all South Coast AQMD outreach and communications with television, radio, newspapers and all other publications, and media operations. The August report is listed below:

Major Media Interactions	110
Press Releases	10
News Carousel	5

Major Media Topics:

- **Rail Yards Indirect Source Rule (ISR):** Staff participated in an interview with KVCR following adoption of the new rule. The Los Angeles Times requested clarification on the rule and the Editorial Board had questions about the Board vote. Responses were provided.
- **Coachella Valley Air Quality:** Staff participated in an interview with KESQ to discuss windblown dust (WBD) in the Coachella Valley. Reporter had follow-up questions. Responses were provided. Newsweek inquired about conditions in the Coachella Valley contributing to the WBD advisory in effect, and whether air quality conditions for smoke are different than for dust. Response was provided.
- Warehouse Indirect Source Rule (WAIRE): Staff participated in an interview with Spectrum News to discuss the WAIRE program. Chemical and Engineering News requested an interview to discuss findings from a study on air pollution impacts of warehouses and had questions on the rule. Response was provided.

- Chiquita Canyon Landfill (CCL): KHTS, The Signal, and an independent Filmmaker attended the CCL Hearing Board meeting in Santa Clarita. KNX News and Spectrum requested information on the outcome of the hearing. Informed reporters that the hearing was extended, and that information will be available once the hearing is over. LAist inquired about the number of complaints we've received for CCL since January 2024. Response was provided.
- Aerial Advertising: LAist inquired about whether pollution from aerial advertising is regulated/monitored. Response was provided.
- Fontana Air Monitor: ProPublica requested field notes pertaining to construction for the Fontana air monitoring station and requested a visit to the station. Reporter was informed there are no field notes. Site visit was conducted on August 8.
- Atlas Metal: Univision and the Los Angeles Times inquired about an explosion at Atlas Iron & Metal Co. Responses were provided.
- **Ecobat:** Public Health Watch had questions about an Ecobat permit issued by the California Department of Toxics Substances Control. Response was provided.
- U.S. EPA Proposal on Ozone Non-attainment: Inside Washington Publishers requested comment on the U.S. EPA proposal about South Coast AQMD ozone non-attainment and had follow ups on any State Implementation Plan/Federal Implementation Plan requirements. Responses were provided. Reporter had follow-up questions related to fees. Additional response was provided.
- **Roofing Permits:** Freelance journalist inquired about a permit and compliance information for a roofing company in Los Angeles. Response was provided.
- Air Purifiers: Boyle Heights Beat inquired about the number of free air purifier applications since their published article. Response was provided.
- **MATES V Report:** Capital and Main followed up on their public records request for MATES V Advanced Air Monitoring Report. Response was provided.
- **Construction Site:** The Los Angeles Times inquired about a proposed construction project in downtown Los Angeles known as Fourth and Central. Response was provided.
- **Hyperion:** The Los Angeles Times requested an interview about Hyperion violations and status updates. Interview was held on August 30.
- **Baker Commodities:** Meat+Poultry inquired about Baker Commodities' permit application to store thousands of pounds of processed animal remains per day. Response was provided.
- **Rails Yards ISR Press Release:** Pitched to media outlets resulting in media coverage.
- Sterigenics Press Release: Pitched to media outlets resulting in media coverage.
- CCL Press Release: Pitched to media outlets resulting in media coverage.
- Windblown Dust Advisory (8/11 & 8/23): Pitched to media outlets resulting in media coverage.

News Releases:

- South Coast AQMD Governing Board Adopts Rail Yards Indirect Source Rule – August 2, 2024 (English and Spanish) – Informed the public of adopted Rule 2306 - Freight Rail Yards Indirect Source Rule.
- South Coast AQMD Issues Windblown Dust Advisory for the Coachella Valley August 11, 2024 (English and Spanish) Informed the public of a PM10 Dust Advisory issued due to high winds.
- South Coast AQMD Requires Sterigenics to Pay Over Half a Million for Permit Violations – August 22, 2024 (English and Spanish) – Informed the public that Sterigenics paid a penalty to settle permit violation NOVs.
- South Coast AQMD Issues Windblown Dust Advisory for the Coachella Valley and San Gorgonio Pass August 23, 2024 (English and Spanish) Informed the public of a PM10 Dust Advisory issued due to high winds.
- Chiquita Canyon Landfill Ordered to Take Further Action to Address Odors After Months of No Significant Improvements – August 27, 2024 (English and Spanish) – Informed the public of additional steps required for CCL to reduce odors.

Social Media Posts:

- <u>Odor Advisory (8/1):</u> 4,432 Twitter Impressions
   RT by @NWSSanDiego, @AirResources, @CodeRed001Blue
- <u>Windblown Dust Advisory (8/11):</u> 7,026 Twitter Impressions
   RT by @NWSSanDiego, @AirResources, @CodeRed001Blue
- <u>AQ Forecast (8/18):</u> 1,451 Twitter Impressions
   RT by @LAFDtalk, @CodeRed001Blue
- <u>Windblown Dust Advisory (8/23):</u> 4,226 Twitter Impressions
  - RT by @NWSSanDiego, @AirResources, @OEHHA

News Carousel:

- The Carl Moyer Program is now accepting applications! (8/6) Linked to Carl Moyer Program webpage.
- Attend the in-person only Hearing Board meeting for a status report on Chiquita Canyon Landfill (8/15) Linked to Hearing Board calendar.
- Keep up with the Latest News from South Coast AQMD View the August/September edition of the Advisor newsletter (8/15) Linked to the August/September Advisor webpage.
- Attend the in-person only Hearing Board meeting for a status report on Chiquita Canyon Landfill (8/22) Linked to Hearing Board calendar.
- Hot days with stagnant weather and strong sunlight can cause poor air quality (8/29) Linked to our Air Alerts page.

# **Outreach to Community Groups and Federal, State and Local Governments**

Communication was conducted in August with elected officials and/or staff from the following state and federal offices:

- U.S. Senator Laphonza Butler
- U.S. Senator Alex Padilla
- U.S. Representative Pete Aguilar
- U.S. Representative Nanette Diaz Barragán
- U.S. Representative Mike Garcia
- U.S. Representative Robert Garcia
- U.S. Representative Ted Lieu
- U.S. Representative Jay Obernolte
- U.S. Representative Raul Ruiz
- U.S. Representative Maxine Waters
- Governor Gavin Newsom
- Senator Ben Allen
- Senator Bob Archuleta
- Senator Angelique Ashby
- Senator Josh Becker
- Senator Steven Bradford
- Senator María Elena Durazo
- Senator Lena Gonzalez
- Senator Brian Jones

- Senator Dave Min
- Senator Rosilicie Ochoa Bogh
- Senator Steve Padilla
- Senator Anthony Portantino
- Senator Kelly Seyarto
- Senator Aisha Wahab
- Senator Scott Wilk
- Assemblymember Issac Bryan
- Assemblymember Sabrina Cervantes
- Assemblymember Diane Dixon
- Assemblymember Tom Lackey
- Assemblymember Josh Lowenthal
- Assemblymember Tina McKinnor
- Assemblymember Al Muratsuchi
- Assemblymember Anthony Rendon
- Assemblymember Kate Sanchez
- Assemblymember Miguel Santiago
- Assemblymember Pilar Schiavo

Outreach was conducted personally and virtually in August to communicate with elected officials or staff from the following cities:

Agoura Hills	Big Bear Lake	Colton
Alhambra	Bradbury	Commerce
Aliso Viejo	Brea	Compton
Anaheim	Buena Park	Corona
Arcadia	Burbank	Costa Mesa
Artesia	Calabasas	Covina
Baldwin Park	Calimesa	Cudahy
Banning	Canyon Lake	Culver City
Beaumont	Carson	Cypress
Bell	Cerritos	Dana Point
Bell Gardens	Chino	Diamond Bar
Bellflower	City of Industry	Downey
Beverly Hills	Claremont	Duarte

Eastvale El Monte El Segundo Fontana Fountain Valley Fullerton Garden Grove Gardena Glendale Glendora Hawaiian Gardens Hawthorne Hemet Hermosa Beach Hidden Hills Huntington Beach Huntington Park Inglewood Irvine Irwindale Jurupa Valley La Cañada Flintridge La Habra La Habra Heights La Mirada La Palma La Puente La Verne Laguna Beach Laguna Hills Laguna Niguel Laguna Woods Lake Elsinore Lake Forest Lakewood Lawndale

Lomita Long Beach Los Alamitos Los Angeles Lynwood Malibu Manhattan Beach Maywood Menifee Mission Viejo Monrovia Montebello Monterey Park Moreno Valley Murrieta Newport Beach Norco Norwalk Ontario Orange Palos Verdes Estates Paramount Pasadena Perris Pico Rivera Placentia Pomona Rancho Cucamonga Rancho Palos Verdes Rancho Santa Margarita Redlands Redondo Beach Rialto Riverside **Rolling Hills** 

**Rolling Hills Estates** Rosemead San Clemente San Dimas San Gabriel San Jacinto San Juan Capistrano San Marino Santa Ana Santa Clarita Santa Fe Springs Santa Monica Seal Beach Sierra Madre Signal Hill South El Monte South Gate South Pasadena Stanton Temecula Temple City Torrance Tustin Vernon Villa Park Walnut West Covina West Hollywood Westlake Village Westminster Whitter Wildomar Yorba Linda Yucaipa

Staff represented South Coast AQMD in August and/or provided updates or a presentation to the following governmental agencies and business organizations:

Arroyo Verdugo Communities Joint Powers Authority Association of California Cities – Orange County **Big Bear Municipal Water District** Carson Chamber of Commerce Chino Valley Chamber of Commerce Coachella Valley Resource Conservation District Colton Chamber of Commerce Corona Chamber of Commerce Crestline Chamber of Commerce East Valley Water District El Segundo Chamber of Commerce Fontana Chamber of Commerce Gardena Valley Chamber of Commerce Gateway Cities Council of Governments Greater Irvine Chamber of Commerce Greater Ontario Business Council Greater Riverside Chambers of Commerce Harbor Association of Industry and Commerce Hermosa Beach Chamber of Commerce Highland Area Chamber of Commerce Hydrogen Fuel Cell Partnership Imperial Irrigation District Inglewood Airport Area Chamber of Commerce Inland Empire Health Plan Inland Empire Regional Chamber of Commerce Inland Empire Utilities Agency Inland Regional Energy Network Jurupa Community Services District La Habra Area Chamber of Commerce Lake Arrowhead Communities Chamber of Commerce League of California Cities, Los Angeles County and Orange County Divisions Los Angeles Area Chamber of Commerce Los Angeles County Department of Public Health Los Angeles County Library Lomita Chamber of Commerce Manhattan Beach Chamber of Commerce Mountain Rim Fire Safe Council Mountain Transit **Ontario International Airport Authority** 

Omnitrans

**Orange County Business Council** Orange County Council of Governments Palos Verdes Peninsula Chamber of Commerce **Redlands Chamber of Commerce** Redondo Beach Chamber of Commerce **Riverside County Board of Supervisors Riverside Transit Authority** San Bernardino Area Chamber of Commerce San Bernardino County Board of Supervisors San Bernardino County Transportation Authority San Fernando Valley Council of Governments San Gabriel Valley Council of Governments San Gabriel Valley Economic Partnership San Pedro Chamber of Commerce SCAG South Bay Association of Chambers of Commerce South Pasadena Chamber of Commerce Southern California Association of Governments SunLine Transit Agency Temescal Valley Municipal Advisory Council Upland Chamber of Commerce Valley Industry and Commerce Association West Valley Water District Yucaipa Valley Chamber of Commerce

In August, staff represented South Coast AQMD and/or provided updates or a presentation to the following community and educational groups and organizations:

Bear Valley Unified School District California State University, Dominguez Hills California State University, Long Beach California State University, San Bernardino Castaic Area Town Council Clean Power Alliance College of the Canyons Del Amo Action Committee Grades of Green Habitat for Humanity, Orange County Habitat for Humanity, Greater Los Angeles Inland Empire Electric Vehicle Association Loma Linda University

Los Angeles Community College District Los Angeles Unified School District Palos Verdes Peninsula Land Conservancy Pasadena Community College Partners for Innovative Communities, San Bernardino and Riverside Reach Out Jurupa Valley **Rialto Unified School District** Rim of the World Unified School District **Rio Hondo College** Saban Community Clinic San Bernardino City Unified School District San Bernardino County Superintendent of Schools San Bernardino Valley College Sierra Club South Bay Parkland Conservancy **Torrance Refinery Action Alliance** University of California, Los Angeles University of California, Riverside University of Redlands Val Verde Civic Association Valley Cultural Foundation

1 Back to Agenda

BOARD MEETING DATE: October 4, 2024AGENDA NO. 10REPORT:Hearing Board ReportSYNOPSIS:This reports the actions taken by the Hearing Board during the<br/>period of August 1 through August 31, 2024.COMMITTEE:No Committee ReviewRECOMMENDED ACTION:<br/>Receive and file.

Micah Ali Hearing Board Chair

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Attached are the following summaries: August 2024 Hearing Board Cases, and Rules From Which Variances and Orders for Abatement Were Requested from January 1, 2024 through August 31, 2024. The applicable South Coast AQMD Rules for 2024 are also attached.

There were no appeals filed during the period of August 1, 2024 to August 31, 2024.

# Report of August 2024 Hearing Board Cases

Case Name and Case No. (South Coast AQMD Attorney)	Rules	Reason for Petition/Hearing	South Coast AQMD Position/Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
<ol> <li>EMD Specialty Materials, LLC Case No. 6260-1 (Consent Calendar)</li> </ol>	203(b) 1147(d)(1)(A) 3002(c)(1)	Petitioner is in violation of District Rules and intends to achieve compliance by replacing the defective low-NOx burner in Permit Condition No. 7.	Not Opposed/Granted	RV granted commencing 8/13/24 and continuing through 7/8/25, the FCD.	NOx: 1.3 lbs/day
2. Spectrasite Communications, LLC – Los Angeles Case No. 6261-1 (M. Reichert)	203(b)	Petitioner requires compliance with permit conditions, because petitioner exceeded its annual permitted operating limit of 200 hours for its engine as specified in Condition No. 4 of Petitioner's Permit to Operate No. G66246.	Opposed/Dismissed	IV dismissed without prejudice for lack of good cause.	N/A
3. Spectrasite Communications, LLC – Hacienda Heights Case No. 6261-2 (M. Reichert)	203(b)	Petitioner requires compliance with permit conditions, because petitioner has exceeded its annual permitted operating limit of 200 hours for its engine as specified in Condition No. 4 of Petitioner's Permit to Operate No. G65402.	Opposed/Dismissed	IV dismissed without prejudice for lack of good cause.	N/A

Case Name and Case No. (South Coast AQMD Attorney)	Rules	Reason for Petition/Hearing	South Coast AQMD Position/Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
4. South Coast AQMD vs. Ameresco Energy, LLC Case No. 6143-4 (K. Roberts)		Ameresco has complied with all terms and conditions of the Stipulated Order to date, and there is no further basis for continuation of the Stipulated Order. Petitioner filed a motion to dismiss and terminate the O/A.	Stipulated/Dismissed	The Hearing Board granted the unopposed motion to dismiss and terminate the O/A issued by the Board.	N/A
5. South Coast AQMD vs. Chiquita Canyon Landfill, LLC Case No. 6177-4 (E. Chavez)	402 H&S §41700	Hearing Board convened a hearing on 8/17/24 and reconvened on 8/20/24 and 8/27/24 pursuant to notice in accordance with the provisions of H&S §§ 40823 and 42451(a) and Rule 812 to consider modifications to the Modified Stipulated Order for Abatement.	Stipulated/Modified	Status Report given, Mod. O/A issued commencing 8/27/24. The Hearing Board shall continue to retain jurisdiction over this matter until 12/31/25.	N/A

Case Name and Case No. (South Coast AQMD Attorney)	Rules	Reason for Petition/Hearing	South Coast AQMD Position/Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
6. South Coast AQMD vs. County of San Bernardino Case No. 6174-1 (Consent Calendar)	1196(d)(1) 1196(f)(8)(a) 1196(f)(10)	A Stipulated Order for Abatement was initially issued on 7/7/20. The County has taken steps to comply with the Order for Abatement; procurement delays have inhibited the process. Both parties have stipulated to the issuance of this Order for Abatement pursuant to H&S 42451(b).	Stipulated/Modified	Mod. O/A issued commencing 8/27/24. The Hearing Board shall continue to retain jurisdiction over this matter until 1/31/27.	N/A
<ol> <li>South Coast AQMD vs. Los Angeles County Metropolitan Transportation Association Case No. 5874-2 (K. Roberts)</li> </ol>	1196(d)(1)	Respondent has taken several steps to fulfill the schedule outlined since the 7/29/21 Order for Abatement. Both Parties have stipulated to the issuance of this Modified Order for Abatement pursuant to H&S 42451(b) and Rule 806(b).	Stipulated/Modified	Mod. O/A issued commencing 8/7/24 and continuing through 12/31/28. The Hearing Board shall retain jurisdiction over this matter until 12/31/28.	N/A

Case Name and Case No. (South Coast AQMD Attorney)	Rules	Reason for Petition/Hearing	South Coast AQMD Position/Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
<ol> <li>South Coast AQMD vs. Southern California Gas Company Case No. 137-81 (J. Lee)</li> </ol>	203(b)	Respondent operated equipment in excess of hours permitted for maintenance and testing.	Stipulated/Denied	The Board denied the O/A because the facts presented failed to show that the Respondent operated the equipment in excess of the permitted limit.	N/A
9. United States Government, Department of Navy Case No. 4518-10 (S. Pruitt)	203(b) 3002(c)(1)	Emergency generator is expected to exceed its permitted annual 200-hour operating limit, due to loss of power caused by a fire on San Clemente Island.	Not Opposed/Granted	Ex Parte EV granted commencing 8/2/24 and continuing for 30 days or until the IV hearing scheduled for 8/29/24, whichever comes first.	D21 CO: 32.27 NOx: 148.38 PM10: 10.60 ROG: 11.86 D200 CO: 38.23 NOX: 24.16 PM10: 1.71 ROG: 4.50
10. United States Government, Department of Navy Case No. 4518-10 (Consent Calendar)	203(b) 3002(c)(1)	Petitioner is in violation because a wildfire caused catastrophic damage to the electrical grid. Site power will take at least a year to restore. Therefore, the equipment has exceeded and will exceed the 200 hour per year operating limit imposed by its permit under relevant rules.	Not Opposed/Granted	IV granted commencing 8/29/24 and continuing for 90 days or until the RV hearing currently scheduled for 10/17/24, whichever occurs first.	D21 CO: 63.6 NOx: 292.47 PM10: 21.19 ROG: 23.72 D200 CO: 72.52 NOX: 45.8 PM10: 3.24 ROG: 8.53

Case Name and Case No. (South Coast AQMD Attorney)	Rules	Reason for Petition/Hearing	South Coast AQMD Position/Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
11. Universal City Studios, LLC Case No. 4935-21 (Consent Calendar)	401(b)(1) H&S §41701	Fog-generating machine used for Halloween-themed production will exceed opacity limits.	Not Opposed/Granted	SV granted commencing 8/13/24 and continuing through 11/5/24	Opacity: to be determined by 11/5/24
12. USA Waste of California – El Sobrante Landfill Case No. 5139-3 (M. Reichert)	203(b) 3002(c)(1)	El Sobrante Landfill, an essential public service, petitioned for a variance because they are unable to physically reduce the DMS component of Sox emissions and the landfill cannot curtail operations.	Not Opposed/Granted	IV granted commencing 8/6/24 and continuing for 90 days or until the RV hearing scheduled for 9/4/204, whichever comes first.	SOx: 8 lbs/dday

Case Name and Case No. (South Coast AQMD Attorney)	Rules	Reason for Petition/Hearing	South Coast AQMD Position/Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
13. Walnut Creek Energy, LLC Case No. 6230-3 (Consent Calendar)	203(b) 2004(f)(1) 3002(c)(1)	Petitioner will be in violation of District Rules 203(b), 3002(c), 2004(f) and from Permit Condition E448.3 and intends to achieve compliance by repairing and returning to service the permitted supercore, a component of the permitted equipment. This short variance provides relief from operating a supercore serial number not listed as part of the site fleet in Permit Condition E448.	Not Opposed/Granted	SV granted commencing 8/1/24 and continuing for 90 days or until the damaged supercore is repaired and installed, whichever comes first.	N/A

Acronyms CO: Carbon Monoxide ICE: Internal Combustion Engine IV: Interim Variance Mod. O/A: Modification Order for Abatement N/A: Not Applicable NOx: Oxides of Nitrogen OA: Order for Abatement RV: Regular Variance SOx: SV: Short Variance

				n which Va							1		
Rules	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Actions
202(b)					1								1
203(b)	7	8	8	6	5	2	6	7					49
204					1								1
218(b)(2)						1							1
218.1(b)(4)(c)						1		-					1
401(b)(1)							1	1					1
402	2		1	1	1		1						6
415(f)							1						1
415(g)							1						1
431.1(c)(2)	1	1		1									3
463(c)				-	1								1
464(b)(1)(A)				1									1
464(b)(2)				1									1
464(b)(3)				1			1						1
1100(d)(1)(B)							•						1
1105.1(e)(2)(A)	1	1	1										3
1105.1(e)(2)(E)	1	1					-						2
1110.2(d)							1						1
1110.2(e)(2)							1						1
1110.2(e)(4)							1						1
1110.2(e)(10)							1						1
1110.2(f)(1)(C)							1						1
1110.2(F)(1)(D)							1						1
1124(c)(1)		1											1
1124(c)(4)		1											1
1128					1								1
1134(d)(3)	1						1						2
1134(e)(2)							1						1
1134(e)(3)							1						1
	1												1
1134(e)(2)(C)	1		•										2
1134(e)(2)(C)(iii)			2										
1146(c)(1)		1											1
1146(e)(1)		1											1

			Rules fron	n which Va	riances and	d Orders fo	r Abateme	nt were R	equested i	n 2024			
Rules	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Actions
1147					1		1						2
1147(d)(1)(a)							1	1					2
1147(h)(13)(A)				1	1								2
1148.1(d)(8)					1								1
1150(b)(2)			1	1									2
1150.1(e)(2)(A)			1										1
1150.1(e)(2)(E)			1										1
1150.1(f)(2)(A)	1												1
1173(d)(1)(B)					1								1
1173(g)(1)			1										1
1176(e)(1)				1									1
1176(e)(2)				1									1
1196(d)(1)						1		2					3
1196(f)(8)(a)								1					1
1196(f)(10)								1					1
1303(a)(1)					1								1
1303(a)(2)					1								1
1420(f)(1)					1		2						3
1470(c)(4)A)	1												1
2004(f)(1)	5	5	4	3	3	2	3	1					26
2005					1								1
2012							1						1
2012(c)(3)(A)					1								1
3002(c)				1	1								2
3002(c)(1)	7	7	4	3	2	2	4	5					34
CA H&S Code 41700	1		1	1	1		1	1					6
CA H&S Code 41701								1					1

#### SOUTH COAST AQMD RULES AND REGULATIONS INDEX FOR 2024 HEARING BOARD CASES AS OF AUGUST 31, 2024

#### **REGULATION II – PERMITS**

- Rule 202 Temporary Permit to Operate
- Rule 203 Permit to Operate
- Rule 204 Permit Conditions

#### **REGULATION IV – PROHIBITIONS**

- Rule 401 Visible Emissions
- Rule 402 Nuisance
- Rule 431.1 Sulfur Content of Gaseous Fuels
- Rule 463 Organic Liquid Storage
- Rule 464 Wastewater Separators

#### **REGULATION XI - TOXICS AND OTHER NON-CRITERIA POLLUTANTS**

- Rule 1100 Implementation Schedule for NOx Facilities
- Rule 1105.1 Reduction of PM10 and Ammonia Emissions from Fluid Catalytic Cracking Units
- Rule 1110.2 Emissions from Stationary Internal Combustion Engines
- Rule 1124 Aerospace Assembly and Component Manufacturing Operations.
- Rule 1128 Paper, Fabric, and Film Coating Operations
- Rule 1134 Emissions of Oxides of Nitrogen from Stationary Gas Turbines
- Rule 1146 Emissions of Oxides of Nitrogen (NOx) from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters
- Rule 1147 NOx Reductions from Miscellaneous Sources
- Rule 1148.1 Oil and Gas Production Wells
- Rule 1150 Excavation of Landfill Sites
- Rule 1150.1 Control of Gaseous Emissions from Municipal Solid Waste Landfills
- Rule 1173 Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants
- Rule 1176 VOC Emissions from Wastewater Systems
- Rule 1196 Clean On-Road Heavy-Duty Public Fleet Vehicles

#### **REGULATION XIII – NEW SOURCE REVIEW**

Rule 1303 Requirements

#### **REGULATION XIV - TOXICS AND OTHER NON-CRITERIA POLLUTANTS**

- Rule 1420 Emissions Standard for Lead
- Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

#### **REGULATION XX – REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)**

- Rule 2004 Requirements
- Rule 2005 New Source Review for RECLAIM
- Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions

#### **REGULATION XXX – TITLE V PERMITS**

3002 – Requirements

#### CALIFORNIA HEALTH AND SAFETY CODE

§41700 Prohibited Discharges §41701 Restricted Discharges

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AGENDA NO. 11

BOARD MEETING DATE: October 4, 2024

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This report summarizes monthly penalties and legal actions filed by the General Counsel's Office from August 1 through August 31, 2024. An Index of South Coast AQMD Rules is attached with the penalty report.

COMMITTEE: No Committee Review

RECOMMENDED ACTION: Receive and file.

Bayron T. Gilchrist General Counsel

BTG:cr

	CIVIL FILINGS	VIOLATIONS
1.	Cricket Transportation	1
	County of Los Angeles Superior Court – Small Claims	
	Case No.: 24LBSC00856; Filed 8.02.24 (CL)	
	NOV No.: P76256	
	13CCR 2485 – Airborne Toxic Control Measure to Limit Diesel	
	Fueled Commercial Motor Vehicle Idling	
	California Health and Safety Code § 42402	
2.	Whittier Valero	1
	County of Los Angeles Superior Court – Small Claims	
	Case No.: 24BFSC01158; Filed 8.06.24 (VB)	
	NOV No.: P78657	
	461 – Gasoline Transfer and Dispensing	
	California Health and Safety Code § 42402	

3.	T&L Autobody	1
	County of Los Angeles Superior Court – Small Claims Case No.: 24WCSC01205; Filed 8.13.24 (VB) NOV No.: P78029 109 – Recordkeeping for Volatile Organic Compound Emissions 203 – Permit to Operate California Health and Safety Code § 42402	
4.	Universal Service Station, Inc.	1
	County of Los Angeles Superior Court – Small Claims Case No.: 24PDSC02094; Filed 8.21.24 (CL) NOV No.: P72984 461 – Gasoline Transfer and Dispensing California Health and Safety Code § 42402	_
5.	Superior Merchandise	1
	County of Los Angeles Superior Court – Small Claims Case No.: 24STSC04090; Filed 8.29.24 (VB) NOV No.: P79059 461 – Gasoline Transfer and Dispensing California Health and Safety Code § 41960.2 California Health and Safety Code § 42402	
		5 Violations

# Attachments

August 2024 Penalty Report Index of South Coast AQMD Rules and Regulations

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT General Counsel's Office

#### Settlement Penalty Report (08/01/2024 - 08/31/2024)

#### **Total Penalties**

Civil Settlement: \$898,418.00

MSPAP Settlement: \$173,230.00

Total Cash Settlements: \$1,071,648.00

Total SEP Value: \$0.00

Fiscal Year through 08/31/2024 Cash Total: \$1,768,835.90

#### Fiscal Year through 08/31/2024 SEP Value Only Total: \$0.00

Fac ID	Company Name	Rule Number	Init	Notice Nbrs	Total Settlement
Civil					
201211	AOSOM LLC	2305	RM	O15067	\$5,000.00
197208	B. BRAUN MEDICAL INC.	2305	JJ	O15028	\$19,800.00
146448	BEO MAG PLATING INC.	203	EC	P74703, P74712	\$2,400.00
201772	DOLLAR TREE	2305	JL	O15004	\$5,000.00
201809	GRAINGER	2305	RM	O15103	\$19,800.00
156741	HARBOR COGENERATION CO, LLC	2004	DH	P66141, P66143, P66150, P76080	\$68,400.00
8451	HUGHES BROS AIRCRAFTERS INC.	203, 1147, 1420.2, H&S 42401	BT	P64582, P64595, P64598, P69829	\$12,800.00
194065	ICOLOR PRINTING & MAILING INC.	203	JL	P76264	\$15,100.00
39574	JOHN O. RICHARDSON	203, 463, 1148.1	EC	P66536, P73339	\$8,800.00
195193	KB HOME COASTAL INC.	403	EC	P74192, P75431	\$3,600.00
201485	KUEHNE + NAGEL INC.	2305	RM	O15076, O15079	\$10,000.00
198648	LAX - FULLERTON	2305	ND	O15043	\$13,800.00
201076	MIRA LOMA DRY DEPOT	2305	RM	O15065	\$11,000.00
195849	MITTERA CALIFORNIA LLC	2004, 3002	SH	P66887, P80153	\$5,000.00
8660	MT. VIEW CEMETERY	203, 461, 1147	RM	P74669, P79706	\$21,800.00
201603	OLIVET INTERNATIONAL	2305	RM	O15081	\$11,000.00
158239	ONE STOP CLEANERS	1421	KCM	P69666, P73156	\$500.00
131426	ORGANIC MILLING INC.	203, 401	SH	P73165, P73236, P78012, P78013	\$8,000.00

Fac ID	Company Name	Rule Number	Init	Notice Nbrs	Total Settlement
45746	PABCO BLDG PRODUCTS LLC (DBA "PABCO PAPER")	1100, 1146, 2004, 2012, 3002	EC	P74255, P74269, P77818	\$1,800.00
117804	PRODUCT ENGINEERING CORPORATION	203, 1469	JL	P73508, P75851	\$18,700.00
20061	RAINBOW ENVIRONMENTAL SERVICES	402, H&S 41700	KCM	P75808	\$1,000.00
189040	RED COLLAR PET FOODS INC.	2004	RL	P66950	\$2,000.00
8582	SO CAL GAS CO - PLAYA DEL REY STORAGE FACILITY	462, 2004, 3002	JL	P79007	\$6,000.00
126191	STERIGENICS US INC.	201, 203, 430	BT, JL	P69835, P69838, P69839, P73621, P74767, P74768, P76129	\$587,800.00
176115	SYSCO RIVERSIDE INC.	2305	RM	O15090	\$5,000.00
800436	TESORO REFINING AND MARKETING CO, LLC	463, 1178, 3002, 40 CFR 60.QQQ	DH	P68987	\$5,100.00
168312	THE LOFTS HOLLYWOOD/VINE	203	ND	P75963, P76537	\$2,418.00
201561	UNDER ARMOUR	2305	NS	O15099	\$13,000.00
193801	UNLIMITED DEMOLITION	1403	KCM	P74426	\$500.00
113674	USA WASTE OF CAL (EL SOBRANTE LANDFILL)	201, 1118.1, 1150.1, 3002	RM	P75856	\$7,500.00
184306	WDJ INC.	461, H&S 41960.2	EC	P70479	\$800.00
200056	WEIDA FREIGHT SYSTEM	2305	ND	O15052	\$5,000.00
Total Civ	il Settlements: \$898,418.00				
MSPAP					
203345	3J CORP CORP STORE (#21)	203	CM	P79365	\$1,009.00
190706	7-ELEVEN (#38339)	461, H&S 41960.2	VB	P73135	\$6,978.00
153263	AAKASH GROUP INC.	461	CL	P68135, P68138, P69875, P69876	\$7,857.00
158652	ARCO AMPM	203, 461, H&S 41960.2	VB	P73126, P73144	\$8,958.00
203133	ARTSONS MFG CO	201, 203, 1147.2	CL	P80404	\$13,621.00
187252	BLOOMINGDALE'S CENTURY CITY	203	СМ	P80055	\$2,018.00
132886	BRAYTON HODGES PETROLEUM INC.	203	CR	P75676	\$707.00
198025	CENTERPOINT CAR WASH	201	VB	P76183	\$1,942.00
166797	CENTINELA CLEANERS	201, 203	CL	P78402	\$3,073.00
169530	CIRCLE K (#2709472)	461	CL	P78768	\$2,342.00
169330	CIRCLE K STORES INC.	461	VB	P79079	\$971.00
169288	CIRCLE K STORES INC.	461	CL	P74837	\$485.00
144690	CONCERNED CITIZENS OF SO. CENTRAL LA	203	СМ	P78432	\$1,009.00
195888	CURRENT TREND CONTRACTORS INC.	1403	CL	P75254	\$1,237.00
181601	DE ANZA CENTER AMPM	461	CR	P80556	\$1,813.00
139399	DE SOTO GAS FOR LESS	461	CL	P77723	\$1,301.00

Fac ID	Company Name	Rule Number	Init	Notice Nbrs	Total Settlement
177660	EMERSON KNIVES INC.	203	CL	P76285	\$1,209.00
174357	FUTURE INKLINGS INC.	461, H&S 41960.2	CR	P79367	\$1,715.00
192594	G&M OIL CO. (#195)	461, H&S 41960.2	SW	P80915	\$3,627.00
158700	GAMA CONTRACTING SERVICES INC.	1403	SW	P79751	\$8,704.00
145861	GRIGORIAN'S INC. (DBA "ARCO #166")	461, H&S 41960.2	VB	P79073	\$3,161.00
126427	HERC RENTALS INC.	203	VB	P80256	\$2,418.00
181837	J&C CONTRACTORS INC. (DBA "J&C ENVIRONMENTA CO INC.")	AL1403	VB	P74446	\$2,218.00
98105	JASON'S ARCO & MINI MART	203, 461	SW	P79099	\$2,218.00
10394	LA COUNTY PARKS & REC DEPARTMENT (HOLLYWOOD BOWL)	203, 461	CL	P76536	\$1,448.00
42514	LA COUNTY SANITATION DISTRICTS (CALABASAS)	3002	CL	P75260	\$9,088.00
19486	LAGUNA BEACH CITY CIVIC CENTER	461	VB	P78581	\$1,942.00
800428	LAMPS PLUS INC. PACIFIC COAST LIGHTING	1145, 3002	VB	P67727, P74867	\$2,118.00
129220	LANDMARK HOTELS LLC	203	CL	P68789	\$1,112.00
51695	LINCOLN BL CAR WASH AZIZCO INC.	461	VB	P79054	\$1,939.00
800234	LOMA LINDA UNIVERSITY	3002	CL	P75237	\$1,813.00
24976	LOS ANGELES GALVANIZING CO	203, 1147.2	VB	P80408	\$3,345.00
141756	LOWE'S HIW INC.	203	CR	P78594	\$958.00
179847	NEPTUNE LAND LLC	461, H&S 41960.2	SW	P79096	\$3,627.00
194203	OLDCASTLE INFRASTRUCTURE	3002	CL	P75206, P79328	\$1,009.00
95189	RBC TRANSPORT DYNAMICS CORP	203, 1147	VB	P78585	\$3,706.00
129085	RONCELLI PLASTICS INC.	1470	CL	P78002	\$971.00
179937	ROSA'S CLEANERS	203, 1102	CL	P67738, P73001	\$942.00
184878	ROTO POWER	203	CL	P75429	\$971.00
122751	ROXY CLEANERS	203	VB	P74039	\$3,027.00
7068	SAN BERNARDINO COUNTY SOLID WASTE MGMT	3002	CL	P76127	\$6,363.00
82209	SANTA MARGARITA WATER DISTRICT	201, 203	VB	P80152	\$4,545.00
130503	SHEIK MAIZON CORPORATION	461	СМ	P80920	\$2,396.00
177588	SIGNAL RESTORATION SERVICES	1403	CL	P79107	\$4,339.00
189758	STAYBRIDGE SUITE HOTEL	222	VB	P76284	\$2,418.00
151849	TESORO WEST COAST CO LLC (#68101)	461, H&S 41960.2	SW	P79089	\$2,018.00
178485	TRENDSETTERS PLUS INC.	203, 461	VB	P77750, P79078	\$11,304.00
203335	TRILOGY LA QUINTA	203, 461	CR	P79332	\$1,614.00
194724	TRUMARK CO	403	VB	P73708	\$5,045.00
187610	UCLA HEALTH	203	CL	P79257	\$3,636.00

Fac ID	Company Name	Rule Number	Init	Notice Nbrs	Total Settlement
181118	UNLIMITED ENGINEERING INC.	403	VB	P74146	\$1,715.00
177588	WESTROCK RESTORATION	1403, 40 CFR 61.145	CL	P79551	\$1,663.00
194988	WF CONSTRUCTION INC.	1403	CL	P79175	\$7,567.00
Total MS	PAP Settlements: \$173,230.00				

#### SOUTH COAST AQMD'S RULES AND REGULATIONS INDEX FOR AUGUST 2024 PENALTY REPORT

#### **REGULATION I - GENERAL PROVISIONS**

Rule 109 Recordkeeping for Volatile Organic Compound Emissions

#### **REGULATION II - PERMITS**

- Rule 201 Permit to Construct
- Rule 203 Permit to Operate
- Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II.

#### **REGULATION IV - PROHIBITIONS**

- Rule 401 Visible Emissions
- Rule 402 Nuisance
- Rule 403 Fugitive Dust
- Rule 430 Breakdown Provisions
- Rule 461 Gasoline Transfer and Dispensing
- Rule 462 Organic Liquid Loading
- Rule 463 Storage of Organic Liquids

#### **REGULATION XI - SOURCE SPECIFIC STANDARDS**

- Rule 1100 Implementation Schedule for NOx Facilities
- Rule 1102 Petroleum Solvent Dry Cleaners
- Rule 1118.1 Control of Emissions from Non-Refinery Flares
- Rule 1145 Plastic, Rubber and Glass Coatings
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
- Rule 1147 NOx Reductions from Miscellaneous Sources
- Rule 1147.2 NOx Reductions from Metal Melting and Heating Furnaces
- Rule 1148.1 Oil and Gas Production Wells
- Rule 1150.1 Control of Gaseous Emissions from Active Landfills
- Rule 1178 Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities

#### **REGULATION XIV - TOXICS**

- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities
- Rule 1420.2 Emission Standards for Lead from Metal Melting Facilities
- Rule 1421 Control of Perchloroethylene Emissions from Dry Cleaning Operations
- Rule 1469 Hexavalent Chromium Emissions from Chrome Plating and Chromic Acid Anodizing Operations
- Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

#### SOUTH COAST AQMD'S RULES AND REGULATIONS INDEX FOR AUGUST 2024 PENALTY REPORT

#### **REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)**

Rule 2004 Requirements

Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions

#### **REGULATION XXIII - FACILITY BASED MOBILE SOURCE MEASURES**

Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (Waire) Program

#### **REGULATION XXX-TITLE V PERMITS**

Rule 3002 Requirements

#### CODE OF FEDERAL REGULATIONS

40 CFR 60, QQQ Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater 40 CFR 61.145 Standards for Demolition and Renovation

#### CALIFORNIA HEALTH AND SAFETY CODE

41700 Prohibited Discharges

41960.2 Gasoline Vapor Recovery

42401 Violation of Order for Abatement

42402 Violation of Emission Limitations – Civil Penalty

#### CALIFORNIA CODE OF REGULATIONS

13 CCR 2485 Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

BOARD MEETING	G DATE: October 4, 2024	AGENDA NO. 12
REPORT:	Intergovernmental Review of Environme CEQA Lead Agency Projects	ental Documents and
SYNOPSIS:	This report provides a listing of environment by other public agencies seeking reviewe between August 1, 2024 and August 31, projects for which South Coast AQMD is pursuant to CEQA.	by South Coast AQMD 2024, and proposed
COMMITTEE:	No Committee Review	

RECOMMENDED ACTION: Receive and file.

Wayne Nastri
Executive Officer

# SR:MK:BR:SW:ET Background

The California Environmental Quality Act (CEQA) Statute and Guidelines require public agencies, when acting in their lead agency role, to provide an opportunity for other public agencies and members of the public to review and comment on the analysis in environmental documents prepared for proposed projects. A lead agency is when a public agency has the greatest responsibility for supervising or approving a proposed project and is responsible for the preparation of the appropriate CEQA document.

Each month, South Coast AQMD receives environmental documents, which include CEQA documents, for proposed projects that could adversely affect air quality. South Coast AQMD fulfills its intergovernmental review responsibilities, in a manner that is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4, by reviewing and commenting on the adequacy of the air quality analysis in the environmental documents prepared by other lead agencies.

The status of these intergovernmental review activities is provided in this report in two sections: 1) Attachment A lists all of the environmental documents prepared by other public agencies seeking review by South Coast AQMD that were received during the reporting period; and 2) Attachment B lists the active projects for which South Coast AQMD has reviewed or is continuing to conduct a review of the environmental documents prepared by other public agencies. Further, as required by the Board's October 2002 Environmental Justice Program Enhancements for FY 2002-03, each attachment includes notes for proposed projects which indicate when South Coast AQMD has been contacted regarding potential air quality-related environmental justice concerns. The attachments also identify for each proposed project, as applicable: 1) the dates of the public comments to a lead agency and the location where the comment letter may be accessed on South Coast AQMD's website; and 3) whether staff testified at a hearing.

In addition, South Coast AQMD will act as lead agency for a proposed project and prepare a CEQA document when: 1) air permits are needed; 2) potentially significant adverse impacts have been identified; and 3) the South Coast AQMD has primary discretionary authority over the approvals. Attachment C lists the proposed air permit projects for which South Coast AQMD is lead agency under CEQA.

### Attachment A – Log of Environmental Documents Prepared by Other Public Agencies and Status of Review, and Attachment B – Log of Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies

Attachment A contains a list of all environmental documents prepared by other public agencies seeking review by South Coast AQMD that were received pursuant to CEQA or other regulatory requirements. Attachment B provides a list of active projects, which were identified in previous months' reports, and which South Coast AQMD staff is continuing to evaluate or prepare comments relative to the environmental documents prepared by other public agencies. The following table provides statistics on the status of review<sup>1</sup> of environmental documents for the current reporting period for Attachments A and B combined<sup>2</sup>:

<sup>&</sup>lt;sup>1</sup> The status of review reflects the date when this Board Letter was prepared. Therefore, Attachments A and B may not reflect the most recent updates.

<sup>&</sup>lt;sup>2</sup> Copies of all comment letters sent to the lead agencies are available on South Coast AQMD's website at: <u>http://www.aqmd.gov/home/regulations/ceqa/commenting-agency</u>.

Statistics for Reporting Period from August 1, 2024 to August 31, 2024			
Attachment A: Environmental Documents Prepared by Other Public	82		
Agencies and Status of Review			
Attachment B: Active Projects with Continued Review of			
Environmental Documents Prepared by Other Public Agencies (which	10		
were previously identified in the June and July 2024 report)			
Total Environmental Documents Listed in Attachments A & B	92		
Comment letters sent	16		
Environmental documents reviewed, but no comments were made	65		
Environmental documents currently undergoing review	11		

Staff focuses on reviewing and preparing comments on environmental documents prepared by other public agencies for proposed projects: 1) where South Coast AQMD is a responsible agency under CEQA (e.g., when air permits are required but another public agency is lead agency); 2) that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); 3) that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); 4) where environmental justice concerns have been raised; and 5) which a lead or responsible agency has specifically requested South Coast AQMD review.

If staff provided written comments to a lead agency, then a hyperlink to the "South Coast AQMD Letter" is included in the "Project Description" column which corresponds to a notation in the "Comment Status" column. In addition, if staff testified at a hearing for a proposed project, then a notation is included in the "Comment Status" column. Copies of all comment letters sent to lead agencies are available on South Coast AQMD's website at: <u>http://www.aqmd.gov/home/regulations/ceqa/commenting-agency</u>. Interested parties seeking information regarding the comment periods and scheduled public hearings for projects listed in Attachments A and B should contact the lead agencies for further details as these dates are occasionally modified.

In January 2006, the Board approved the Clean Port Initiative Workplan (Workplan). One action item of the Workplan was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In accordance with this action item, Attachments A and B organize the environmental documents received according to the following categories: 1) goods movement projects; 2) schools; 3) landfills and wastewater projects; 4) airports; and 5) general land use projects. In response to the action item relative to mitigation, staff maintains a compilation of mitigation measures presented as a series of tables relative to off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases which are available on South Coast AQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigationmeasures-and-control-efficiencies. Staff will continue compiling tables of mitigation measures for other emission sources such as ground support equipment.

# Attachment C – Proposed Air Permit Projects for Which South Coast AQMD is CEQA Lead Agency

The CEQA lead agency is responsible for determining the type of environmental document to be prepared if a proposal requiring discretionary action is considered to be a "project" as defined by CEQA. South Coast AQMD periodically acts as lead agency for its air permit projects and the type of environmental document prepared may vary depending on the potential impacts. For example, an Environmental Impact Report (EIR) is prepared when there is substantial evidence that the project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if a proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are types of CEQA documents which analyze the potential environment will not occur such that the preparation of an EIR is not required.

Attachment C of this report summarizes the proposed air permit projects for which South Coast AQMD is lead agency and is currently preparing or has prepared environmental documentation pursuant to CEQA. As noted in Attachment C, South Coast AQMD is lead agency for four air permit projects during August 2024.

## Attachments

- A. Environmental Documents Prepared by Other Public Agencies and Status of Review
- B. Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies
- C. Proposed Air Permit Projects for Which South Coast AQMD is CEQA Lead Agency

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Goods Movement	The project consists of considering a Coastal Development Permit (CDP) seeking to: 1) modify	Other	Port of Los Angeles	Document
LAC240814-01	and expand the railyard to provide the latest technological systems for the routing of trains; and 2) add seven new tracks. The project is located within the Port of Los Angeles portion of the San			reviewed - No
Berths 302-305 On-Dock Rail Yard Expansion Project (CDP No. 24-04)#	Pedro Bay at 614 Terminal Way, Terminal Island, CA 90731. The project is also located in the designated AB 617 Wilmington, Carson, and West Long Beach community.			comments sent
Goods Movement	Comment Period: N/A     Public Hearing: 8/22/2024       The project consists of continuing operation of the China Shipping (CS) Container Terminal	Notice of	Port of Los Angeles	Document
	under new or revised mitigation measures compared to those set forth in the 2008 Final	Preparation of a	T OIT OI LOS Aligeles	reviewed -
LAC240821-10	Environmental Impact Report (EIR) and re-analyzing the 2019 Final Supplemental EIR in	Draft Revised		No
Berths 97-109 [China Shipping] Container Terminal Project#	accordance with the court order and modifying 10 of 52 mitigation measures that were	Supplemental		comments
	previously approved in the 2008 Final EIR with six of the 10 modified mitigation measures are	Environmental		sent
	related to air quality. The project will also include an increase in cargo throughput by 147,504	Impact Report		
	twenty-foot equivalent units (TEUs) from 1,551,000 TEUs to 1,698,504 TEUs in 2030. The project is located at the Port of Los Angeles on the northeast corner of State Route 47 and			
	Interstate 110 in the communities of San Pedro and Wilmington. The project is also located in			
	the designated AB 617 Wilmington, Carson, and West Long Beach community.			
	Reference LAC191203-05, LAC190905-02, LAC181002-11, LAC170616-02, LAC150918-02,			
	LAC081218-01, LAC080501-01, LAC060822-02, and LAC170725-01			
	Staff previously provided comments on the Final Supplemental Environmental Impact Report for			
	the project, which can be accessed at: <u>https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/december/CEQA_Appeal_China_Shipping_FSEIR_20191204.pdf</u>			
	Comment Period: 8/22/2024 - 9/20/2024 Public Hearing: N/A			

Key:

# = Project has potential environmental justice concerns due to the nature and/or location of the project.

LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, SBC = San Bernardino County, and ALL = All counties within the South Coast AQMD jurisdiction Project Notes:

Disposition may change prior to Governing Board Meeting
 Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

	August 1, 2024 to August 31, 2024			
SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers LAC240801-04 Intex Corporate Office and Fulfillment Center#	The project consists of constructing a 517,437 square foot warehouse on 26.47 acres. The project also includes the development of 570 parking stalls and 174 loading/trailer parking spaces. The project is located at 4000 Via Oro Avenue on the northeast corner of West Carson Street and Via Oro Avenue (Los Angeles County Assessor's ID Numbers: 7310-015-034, 7310-015-019, and 7310-015-023) within the designated AB 617 Wilmington, Carson, and West Long Beach community . Reference LAC230418-06 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: <a href="https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/may-2023/LAC230418-06.pdf">https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/may-2023/LAC230418-06.pdf</a>	Notice of Availability of a Draft Environmental Impact Report	City of Long Beach	Under review, may submit comments
	Comment Period: 7/30/2024 - 9/27/2024 Public Hearing: N/A			
Warehouse & Distribution Centers LAC240801-09 East End Studios ADLA	The project consists of demolishing two existing warehouse structures totaling approximately 311,000 square feet and constructing a multi-story production studio campus totaling 675,611 square feet on approximately 14.6 acres. The project is located on the southeast corner of Alameda Street and Sixth Street at 1206-1338 East Sixth Street, 1210-1290 and 1219-1361 East Produce Street, 635-639 Mill Street, 1205-1321 Wholesale Street, and 640 South Alameda Street. Reference LAC230214-05 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: <a href="https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/march-2023/LAC230214-05.pdf">https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/march-2023/LAC230214-05.pdf</a> .	Notice of Completion and Availability of Draft Environmental Impact Report	City of Los Angeles	Comment letter sent on 8/28/2024
Warehouse & Distribution Centers LAC240820-08 5910 Cherry Avenue Industrial Building Project	The project consists of requesting a zone change from General Industrial (IG) to Light Industrial (IL) to be consistent with the Neo-Industrial Place Type of the General Plan Land Use Element. The project is located at 5910 Cherry Avenue (APN: 7119-018-033). Reference LAC240716-05, LAC240709-03, LAC240612-11, LAC240611-01, LAC240319-02, and LAC231010-03	Other	City of Long Beach	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 9/3/2024			

Key:

# = Project has potential environmental justice concerns due to the nature and/or location of the project.

LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, SBC = San Bernardino County, and ALL = All counties within the South Coast AQMD jurisdiction Project Notes:

1. Disposition may change prior to Governing Board Meeting

SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Warehouse & Distribution Centers RVC240801-14 Distribution Park Commercial and Industrial Project	The project consists of constructing a 271,098 square foot warehouse with 34 truck loading docks and 78 truck parking spaces, a 52,000 square foot hotel, and two sit-down restaurants on 17.1 acres. The project is located north of East Dawes Street, east of Painted Canyon Street, south of Ramona Expressway, and west of the Camper Resorts of America facility. Reference RVC240501-08 and RVC231122-03	Responses to Comments	City of Perris	Document reviewed - No comments sent
	Staff previously provided comments on the Notice of Availability of a Draft Environmental Impact Report for the project, which can be accessed at: <u>https://www.aqmd.gov/docs/default- source/ceqa/comment-letters/2024/june-2024/rvc240501-08-draft-eir-distribution-park-commercial-and- industrial-projectspa-22-05380-tpm-38730-dpr-22-00038-project.pdf.</u>			
	Comment Period: N/A Public Hearing: 8/7/2024			
Warehouse & Distribution Centers <b>RVC240807-01</b> CADO Menifee Industrial Warehouse Project - Tentative Parcel Map (TPM) No. PLN22-0041 and Plot Plan No. PLN 21-0370	The project consists of constructing a 700,037 square foot warehouse on 40.03 acres. The project is located north of Corsica Lane, east of Wheat Street, south of Kuffel Road, and west of Byers Road (Assessor Parcel Numbers: 330-190-002 through 330-190-005 and 330-190-010 through 330-190-013). Reference RVC240313-05 and RVC220503-10 Staff previously provided comments on the Notice of Availability of a Draft Environmental Impact Report for the project, which can be accessed at: https://www.aqmd.gov/docs/default- source/ceqa/comment-letters/2024/april-2024/RVC240313-05.pdf. Comment Period: 8/6/2024- 8/14/2024 Public Hearing: 8/14/2024	Notice of Availability of a Final Environmental Impact Report / Other	City of Menifee	Document reviewed - No comments sent
Warehouse & Distribution Centers RVC240828-02 Palm Springs Fulfillment Center	The project consists of constructing a 739,360 square foot warehouse on 38 acres. The project is located near the northwest corner of Indian Canyon Drive and 19th Avenue (APN: 666-320-018) Reference RVC240501-06 and RVC230809-04 Staff previously provided comments on the Notice of Availability of a Draft Environmental Impact Report for the project, which can be accessed at: <u>https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240501-06-deir-palm-springs-fulfillment-center-project.pdf</u>	Notice of Availability of a Recirculated Draft Environmental Impact Report	City of Palms Springs	Under review, may submit comments
	Comment Period: 8/26/2024 - 10/9/2024 Public Hearing: N/A			

Key:

# = Project has potential environmental justice concerns due to the nature and/or location of the project.

LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, SBC = San Bernardino County, and ALL = All counties within the South Coast AQMD jurisdiction Project Notes:

1. Disposition may change prior to Governing Board Meeting

		1	1	
SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Warehouse & Distribution Centers	The project consists of subdividing 1,376.50 acres into 20 numbered lots with sizes ranging from	Site Plan	City of Beaumont	Document
RVC240828-13	3.20 to 86.30 acres and several lettered lots. The project is located east of Potrero Boulevard and			reviewed -
Legacy Highlands PM2022-0014 TPM38613	south of the State Route 60. Reference RVC240709-05, RVC230927-09, RVC221115-09, RVC220913-04, RVC220809-07 and RVC220601- 06			No comments sent
	Comment Period: N/A Public Hearing: 9/12/2024			
Industrial and Commercial	The project consists of demolishing an existing approximately 40,000 square feet film storage	Notice of Intent	City of Los Angeles	Comment
LAC240801-13	building and its associated parking lot and truck rental business and constructing a 168,478	to Adopt a		letter sent
ENV-2023-5533: 956 Seward Project	square feet seven-story storage building. The project is located at 936-962 North Seward Street and 949-959 North Hudson Avenue in the City of Los Angeles.	Mitigated Negative Declaration		on 8/21/2024
	https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/lac240801-13-mnd-956- seward-project.pdf			
	Comment Period: 8/1/2024- 8/21/2024 Public Hearing: N/A			
Industrial and Commercial	The project consists of approving a Development Plan to construct an approximately 19,124	Other	City of Santa Fe	Document
LAC240807-05	square foot industrial building and related improvements within the M-2 Zone (Heavy		Springs	reviewed -
Development Plan Approval Case No.	Manufacturing Zone); and modifying a permit to allow a 2'-0" reduction of the required front yard setback along Freeman Avenue and Telegraph Road. The project is located at 10320			No comments
1005 and Modification Permit Case No. 1361	Freeman Avenue (APN: 8011-004-031).			sent
	Comment Period: N/A Public Hearing: 8/12/2024			

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SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Industrial and Commercial LAC240821-07 ENV-2023-6757: 9000 Airport Boulevard	The project consists of demolishing 37,860 square feet of existing commercial/industrial floor area uses and associated surface parking areas and developing up to 435,390 square feet of industrial uses on approximately 18 acres. The project includes two options: Option 1 would develop one building comprised of up to 435,390 and Option 2 would develop three buildings comprised of up to 410,056 square feet of industrial floor area. The project would include truck trailer parking spaces and vehicle parking spaces under Option 1, and vehicle parking spaces under Option 2. The project is bounded by West Interceptor Street to the north, residential uses and surface parking to the east, West Arbor Vitae Street to the south, and South Airport Boulevard to the west. The project is located within the Westchester–Playa del Rey Community Plan area.	Notice of Preparation of an Environmental Impact Report	City of Los Angeles	Under review, may submit comments
	Comment Period: 8/21/2024 - 9/20/2024 Public Hearing: N/A			
Industrial and Commercial LAC240828-10 TVC 2050 Project	The project consists of establishing Television City 2050 Specific Plan to allow for the continuation of an existing studio use, modernization and expansion of media production facilities on approximately 25 acres. The Specific Plan would permit up to a maximum of 1,724,000 square feet of sound stage, production support, production office, general office, and retail uses, up to 1,459,623 square feet of new development, the retention of a minimum of 264,377 square feet of existing uses, and the demolition of up to 479,303 square of existing media production facilities. The designated Historic-Cultural Monument (HCM No. 1167; CHC-2018- 476-HCM) would be retained and rehabilitated as part of the project. In addition, a Sign District would be established to permit studio-specific on-site signage. The project is located at 7716 - 7860 Beverly Boulevard. Reference LAC231122-01, LAC220715-02 and LAC210706-06		City of Los Angeles	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 9/12/2024			
Industrial and Commercial ORC240813-01 5665 Plaza Drive Project	The project consists of demolishing a 150,626 square foot office building and constructing a 191,394 square foot industrial building with 181,061 square foot of warehouse space and 10,333 square foot of office space on 8.53 acres. The project is located north of the intersection of Plaza Drive and Douglas Drive at 5665 Plaza Drive. Reference ORC240503-02, ORC240402-11 and ORC240221-03	Notice of Availability of a Draft Environmental Impact Report	City of Cypress	Under review, may submit comments
	Comment Period: 8/12/2024 - 9/27/2024 Public Hearing: N/A			

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	Mugust 1, 2024 to Mugust 31, 2024			
SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Industrial and Commercial	The project consists of constructing a 271,098 square foot warehouse with 34 truck loading docks	Other	City of Perris	Document
<b>RVC240801-07</b> Distribution Park Commercial and Industrial Project - SPA 22-05380, TPM 22-38730, DPR 22-00037, DPR 22- 00038	and 78 truck parking spaces, a 52,008 square foot hotel, and two sit-down restaurants on 17.1 acres. The project is located north of East Dawes Street, east of Painted Canyon Street, south of Ramona Expressway, and west of the Camper Resorts of America facility. Reference RVC231122-03 and RVC240501-08 Staff previously provided comments on the Notice of Availability of a Draft Environmental Impact Report for the project, which can be accessed at: <a href="https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240501-08-draft-eir-distribution-park-commercial-and-industrial-projectspa-22-05380-tpm-38730-dpr-22-00038-project.pdf">https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240501-08</a>			reviewed - No comments sent
	Comment Period: N/A Public Hearing: 8/7/2024			
Industrial and Commercial <b>RVC240801-11</b> Menifee Business Park – Plot plan No. PLN23-0245	The project consists of developing a commercial/industrial business park that includes 11 buildings ranging in size from approximately 23,100 square feet to 37,840 square feet (total 337,770 square feet), 677 parking spaces, and 121,879 square feet of irrigated landscaped area on approximately 20 acres. The project also includes two driveways along Zeiders Road with the southernmost driveway being signalized and aligning with Scott Road Commerce Center. The project is located north of Keller Road, east of Howard Way, south of Scott Road, and west Zeiders Road (APN: 384-150-001). Reference RVC240724-03	Notice of Preparation of a Draft Environmental Impact Report / Other	City of Menifee	Document reviewed - No comments sent
Industrial and Commercial RVC240820-06 Conditional Use Permit for Corona Clay - General Plan Amendment No. 1144, Change of Zone No. 6361, Conditional Use Permit No. 3265, Surface Mining Permit No. 197R1, and Habitat Acquisition and Negotiation Strategy No. 02278	Comment Period:7/24/2024 - 8/22/2024Public Hearing:7/31/2024The project consists of entitling existing on-site uses and reclaiming a one-acre slope area on Corona Clay Company's site known as "Dawson Canyon Clay Facility." Existing uses to be entitled on the 110.5-acres project site include motorcycle test tracks on 30 acres, a clay processing and recycling facility on 18.5 acres, a model airplane field on 4.8 acres, and 6.4 acres of roads and ancillary uses. The remaining 50.8 acres will be designated Open Space - Conservation Habitat in accordance with the Western Riverside County Multi-Species Habitat Plan. The project is located north of Dawson Canyon Road and east of Interstate 15 in the County of Riverside.	Notice of Intent to Adopt a Mitigated Negative Declaration	County of Riverside	Document reviewed - No comments sent
	Comment Period: 8/16/2024 - 9/16/2024 Public Hearing: 9/18/2024			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Waste and Water-related LAC240807-03 McKinley Elementary School	The project consists of implementing a selected remedy identified in the Removal Action Workplan on 1.0 acres. The project consists of: 1) using soil cap, asphalt/concrete to address arsenic detected in soil; 2) installing a Vapor Intrusion Mitigation system under proposed new building to address volatile organic compounds detected in soil vapor; and 3) executing a Land Use Covenant and long-term Operation and Maintenance. The project is located at 2401 Santa Monica Boulevard in the City of Santa Monica. Reference LAC240522-05	Other	Department of Toxic Substances Control (DTSC)	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Waste and Water-related LAC240807-12 Amendment to CUP No. 733 – Universal Waste Systems, Inc., Material Recovery Facility and Transfer Station	The project consists of requesting approval for Modification to Conditional Use Permit (CUP) 733 to permit: 1) an increase of the processing capacity from 1,500 tons per day (tpd) to 2,500 tpd; 2) an addition of organic waste processing equipment in Building "B" to accommodate new equipment that would be required to process and recycle organic waste pursuant to Senate Bill 1383; 3) a revision of the facility's hours of operation; and 4) a revision of the parking layout to decrease parking spaces from 104 to 54. The project is located at 9016 Norwalk Boulevard and encompasses approximately 3.81 acres (APNs: 8168-001-044 and 8168-001-815). Reference LAC150602-05 and LAC150519-07	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Santa Fe Springs	Document reviewed - No comments sent
	Comment Period: 8/1/2024- 8/31/2024 Public Hearing: N/A			
Waste and Water-related LAC240814-06 Prisma Artists Lofts	The project consists of a community survey for a site cleanup program at a 1.5-acres empty lot. The site was previously used as an automotive service station but is proposed to be developed into a 75-unit, four-level, at-grade residential development. Previous investigations at the site found contamination in soil, including arsenic, lead, and mercury, and in soil gas, including volatile organic compounds such as tetrachloroethene (PCE), benzene, ethylbenzene, and petroleum higher than regulatory screening levels. The project is located at 501 East Mission Boulevard in the City of Pomona.		Department of Toxic Substances Control (DTSC)	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			

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			LEAD AGENCET	
SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related LAC240815-01 Tapia Water Reclamation Facility 003 Outfall Rehabilitation Project	The project consists of inspecting and repairing an existing 24-inch outfall pipeline, which spans approximately 2,250 linear feet from the Tapia Water Reclamation Facility to Malibu Creek. The project also consists of installing five new 36-inch diameter manholes at existing bends within the pipeline alignment, which would provide access for inspection of the pipeline. The project encompasses 1.4 acres and is located within Malibu Creek State Park along Malibu Canyon Road in the County of Los Angeles.	Notice of Intent to Adopt a Mitigated Negative Declaration	Las Virgenes - Triunfo Joint Powers Authority	Document reviewed - No comments sent
Waste and Water-related	Comment Period:8/15/2024 - 9/16/2024Public Hearing:N/AThe project consists of installing a 25-megawatt (MW) utility-scale Battery Energy Storage	Notice of Intent	City of Pasadena	Document
LAC240821-03 Glenarm Bess Project	System (BESS) within the existing Glenarm Power Plant on approximately 0.59 acre. The project would charge and store electricity, with a minimum storage capability of four hours. The project is located at 52 East Glenarm Street.	to Adopt a Mitigated Negative Declaration	City of Fasadena	reviewed - No comments sent
	Comment Period: 8/1/2024- 8/30/2024 Public Hearing: N/A			
Waste and Water-related LAC240828-03 P. Kay Metal, Inc.#	The project consists of requesting approval for a Class 1* Permit Modification for an existing hazardous waste facility to revise the performance standards for wipe and chip sampling and revisions to the soil plan in accordance with Title 22, Section 66270.42(a) of the California Code of Regulations. The project is located at 2448 East 25th Street on the southwest corner of East 25th Street and Minerva Street in the City of Los Angeles. The project is located within two designated AB 617 communities: 1) Southeast Los Angeles; and 2) East Los Angeles, Boyle Heights, and West Commerce. Reference LAC210520-02 Staff previously provided comments on the Permit Modification for the project, which can be accessed at: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2021/june/LAC210520-02	Permit Modification	Department of Toxic Substances Control (DTSC)	Document reviewed - No comments sent
	02.pdf Comment Period: N/A Public Hearing: N/A			

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<sup>2.</sup> Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT	
PROJECT TITLE		DOC.		STATUS	
Waste and Water-related LAC240828-04 Environmental Investigation Former Garner Glass Company – Claremont, CA	The project consists of providing the community with a fact sheet of the ongoing environmental investigations and cleanup activities at the Former Garner Glass Company. The project is located at 177 South Indian Hill Boulevard in Claremont.	Community Fact Sheet	California Water Boards	Document reviewed - No comments sent	
	Comment Period: N/A Public Hearing: N/A				
Waste and Water-related	The project consists of providing a community update on the ongoing investigation of potential	Other	Department of	Document	
LAC240828-06 Environmental Investigation Courtesy Cleaners – Compton, CA#	tetrachlorethylene (PCE) contamination in soil vapor at Courtesy Cleaners. The project consists of performing indoor air and subsurface sampling on 0.66 acres. The project is located at 1705 East Compton Boulevard in the City of Compton within the designated AB 617 South Los Angeles community.	ng on 0.66 acres. The project is located at 1705 Control	Foxic Substances Control (DTSC)	reviewed - No comments sent	
	Comment Period: N/A Public Hearing: N/A				
Waste and Water-related LAC240828-09 Long Beach Industrial Park Project#	The project consists of: 1) developing cleanup actions to excavate, consolidate, and cover soil contaminated with petroleum hydrocarbons, volatile organic compounds, and metals; 2) installation of soil vapor extraction systems and groundwater monitoring wells; and 3) a land use covenant to require monitoring and soil management for future development on 14 acres. The project is located at 3701 North Pacific Place on the northeast corner of Los Angeles River and Interstate 405 in the City of Long Beach within the designated AB 617 Wilmington, Carson, West Long Beach community. Reference LAC210408-01, LAC201117-05 and LAC201016-01	Draft Response Plan	Department of Toxic Substances Control (DTSC)	Document reviewed - No comments sent	
	Comment Period: 8/28/2024 - 9/27/2024 Public Hearing: 9/23/2024				

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Waste and Water-related ORC240802-01 Orange County Climate Action Plan	The project consists of assessing greenhouse gas (GHG) inventory of all municipalities and unincorporated regions as well as target sectors of focus, emission reduction measures and associated co-benefits. The project also includes prioritization measures for determining cost- effectiveness and greatest need and ensuring that emission reductions are targeted in the most vulnerable areas. The project is located throughout the County of Orange.	Other	County of Orange	Document reviewed - No comments sent
	Comment Period: 8/1/2024- 8/22/2024 Public Hearing: 8/6/2024			
Waste and Water-related	The project consists of: 1) constructing approximately 956 linear feet of new pipeline along 4th	Notice of Intent	San Gorgonio Pass	Document
<b>RVC240807-11</b> County Line Road Recharge and Turnout Facility Project	Street on 7.0 acres; 2) operating and maintaining a groundwater recharge basin; 3) constructing a scientific groundwater monitoring well to a depth of up to 1,000 feet; 4) relocating an existing potable water pipeline; 5) repaying Buena Vista Court and raising the curbs and crown for approximately 600 feet; 6) constructing a new turnout to connect the existing pipeline within County Line Road to the East Branch Extension pipeline within Bryant Street (approximately 160 linear feet). The project is located along and south of County Line Road and west of 4th Street which separates Calimesa, Riverside County from Yucaipa, San Bernardino County.	to Adopt a Mitigated Negative Declaration	Water Agency (SGPWA)	reviewed - No comments sent
	Comment Period: 8/7/2024 - 9/2/2024 Public Hearing: 10/7/2024			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Waste and Water-related	The project consists of: 1) demolishing existing Carancho Tank Nos. 1 and 2; 2) removing a 12-	Notice of Intent	Rancho California	Comment letter sent
RVC240809-02	inch diameter intake pipe; 3) installing approximately 600 linear feet of 24-inch diameter potable water pipeline; 4) relocating the existing radio antenna; 5) abandoning and removing an existing	to Adopt a Negative	Water District	on
Carancho Pump Station Expansion and	Southern California Edison (SCE) transformer; 6) permanently stabilizing surfaces; 7) replacing	Declaration /		9/6/2024
Improvement (Project No. D2048)	two existing pumps (350 Hp each) and installing two new pumps (350 Hp each) capable of	Mitigated		
	handling the desired capacity of 4,400 gallons per minute ; 8) installing two surge tanks, electrical conduit, a 50-foot antenna, a new transformer; and a new 1,250 kW emergency power	Negative Declaration		
	generator with enclosure (300 feet by	Declaration		
	92.5 feet) and automatic transfer switch meeting Tier 2 emission standards. The project is located			
	approximately three miles southeast of the Tenaja Pump Station, approximately 7.7 miles south of			
	the Baldary Pump Station, and approximately 2.3 miles west of the Cross Creek Golf Course on 6.56 acres (APN: 933-050-036).			
	https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/september-2024/rvc240809-02-mnd- carancho-pump-station-expansion-and-improvement-project-no-d2048-project.pdf			
	caraneno-pump-station-expansion-and-improvement-project-no-d2048-project.pdf			
	Comment Period: 8/8/2024- 9/9/2024 Public Hearing: N/A			
Waste and Water-related	The project consists of removing tetrachloroethylene (PCE) and trichloroethylene (TCE) from soil	Draft Removal	Department of	Document
RVC240814-02	vapor and arsenic and lead from soil on 0.16 acre. The project is bordered by East Devonshire Avenue to the north and North San Jacinto Street to the west and is located at 298 North San	Action Workplan	Toxic Substances	reviewed - No
Borders Cleaners	Jacinto Street in the City of Hemet.		Control (DTSC)	comments
				sent
	Comment Period: 8/7/2024-9/5/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related RVC240828-08 Well 25 Project	The project consists of constructing and operating a new groundwater well, a raw water pipeline, and a new water treatment facility on 1.1 acres. Well 25 is proposed to be approximately 16 inches in diameter and drilled to a depth of approximately 200 feet below ground surface with a target production capacity of 1,500 gallons per minute (gpm). Well 25 would be equipped with a 75 to 150 horsepower (hp) electric motor. Well 25 is located on Mission Boulevard near the intersection of Mission Boulevard and Daly Avenue. The Raw Water Pipeline Alignment would extend approximately 2,640 linear feet from the wellhead at Well 25, along Mission Boulevard, Daly Avenue, and 34th Street and terminate at the new treatment facility. The new treatment facility would be constructed at either: 1) the Potential Thompson Expansion Site; (ii) the Leland J. Thompson Facility, or (iii) the Laverne Mahnke Manganese Treatment Facility.	Notice of Intent to Adopt a Mitigated Negative Declaration	Rubidoux Community Services District (RCSD)	Under review, may submit comments
	Comment Period: 8/28/2024 - 9/26/2024 Public Hearing: 10/17/2024			
Waste and Water-related SBC240801-03 West Valley Water District Well No. 57 Project	The project consists of installing a new well and requesting an easement from the Metropolitan Water District (MWD) to enable flush-to-waste drainage, pipeline installation, and discharge to the existing catch basin, and a well pipeline connection to the existing 24-inch waterline. The project also includes the following features: a 12-inch diameter pipeline connecting to the West Valley Water District's distribution system; a 6-inch drain line to connect to a pump for waste; a 6-feet by 9-feet chlorination building for sodium hypochlorite 12.5% storage; and a 5-inch conduit, switch gear, and transformer to connect to the existing powerline pole. The project is located northwest of the intersection of Vesta Way and Knox Avenue, just northeast of the intersection of Knox Avenue and Walsh Lane in the City of Fontana. The project is located on an approximately 1.6 acres portion of three parcels (Assessor's Parcel Numbers: 110-752-174, 110- 752-176, and 110-752- 171).	Notice of Intent to Adopt a Mitigated Negative Declaration	West Valley Water District	Document reviewed - No comments sent
Waste and Water-related	Comment Period:     7/30/2024 - 8/29/2024     Public Hearing: N/A       The project consists of improving the following infrastructure systems: water; wastewater/sewer;	Notice of	Inland Valley	Under
SBC240820-03 Inland Valley Infrastructure Corridor (IVIC)	dry utilities, including communications; drainage; roads; and other future utility integration. The project is bounded by San Bernardino International Airport to the north, State Route 210 to the east, and Tippecanoe Avenue to the west. References SBC231206-03	Availability and Notice of Completion for a Draft Environmental Impact Report	Development Agency	review, may submit comments
	Comment Period: 8/20/2024 - 10/21/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Waste and Water-related <b>SBC240821-11</b> Kaiser Ventures, Inc. (Former Kaiser Steel Mill Facility)	The project consists of a public notice to inform the public of an application seeking to renew th Kaiser Ventures Inc. Former Kaiser Steel Mill Facility Post- Closure Hazardous Waste Facility Permit. The application requests authorization to continue to store and treat hazardous waste. The project is located at 13557 San Bernardino Avenue in the City of Fontana. Reference SBC190822-03 and SBC160719-04		Department of Toxic Substances Control (DTSC)	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Waste and Water-related	The project consists of installing a new well on a less than one acre portion of an approximately		East Valley Water	Under
SBC240822-01 East Valley Water District Well No. 129 Project	2.37-acres parcel to generate 25 to 150 acre-feet per month of potable groundwater. The project would include the following features: the new well (wellhead); an 8-inch diameter pipeline connecting to the existing onsite piping; a 4-feet diameter reinforced concrete pipe (RCP) that extends 2-feet above grade and 16-inch RCP drain line; chlorine and orthophosphate dosing systems; a 55-feet by 20-feet Concrete Masonry Unit block building with a standing seam meta roof enclosing the wellhead, discharge header, Permit to Work header, electrical equipment, and chemical facilities. The project is located northwest of the intersection of Calle Del Rio Street a Vista Clara Street, and south of Oak Creek in the City of Highland (APN: 121-038-110).	Mitigated Negative Declaration	District	review, may submit comments
	Comment Period: 8/26/2024 - 9/25/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT	
PROJECT TITLE		DOC.		STATUS	
Utilities <b>RVC240814-05</b> Sapphire Solar Project - Conditional Use Permit No. 220035, Public Use Permit No. 220002, and Development Agreement No. 2200018	The project consists of requesting approval to entitle, construct, operate, maintain, and decommission an up to 117-megawatt (MW) solar photovoltaic (PV) electricity generating and up to 117 MW battery energy storage system, a generation tie (gen-tie) line, and two a roads. The project is located on approximately 1,123 acres, of which approximately 1,082 located on private lands and approximately 41 acres is located on land administered by the States Department of Interior, Bureau of Land Management (BLM). The approximately 41 area on BLM-administered lands would be limited to two Linear Facility Routes, which w include one 230-kilovolt (kV) gen-tie line, two access roads, and one collector line route. ' approximately 1,082 acres of private land would be limited to the project's solar site, whici include up to 117 MW of PV solar generation and up to 117 MW of battery storage. The F would interconnect with the Southern California Edison (SCE) 230-kV Red Bluff Substati line tap on the existing Desert Harvest generation-tie line located on lands administered by BLM. The project is located approximately 40 miles west of the City of Blythe.	access acres is United 1 acres vould The ch would Project ion via y the		Under review, may submit comments	
	Comment Period: 8/12/2024 - 9/26/2024 Public Hearing: N/A				
Utilities RVC240820-04 IP Easley Renewable Energy Project	The project consists of constructing a 400-megawatt (MW) solar photovoltaic electric gen station, a 650-MW battery storage facility, electrical substation, gen-tie lines, and associat access roads on 3,735 acres of land. The project is located two miles north of Desert Center northeast of Highway 177/Orion Road and north of Oasis Road, east of Kaiser Road, and s Investor Avenue. Reference RVC240604-03, RVC240201-05 and RVC230927-01	er and Final		Document reviewed - No comments sent	
	Comment Period: N/A Public Hearing: 8/27	7/2024			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
<i>Transportation</i> ORC240807-07 Modjeska Grade Road	The project consists of improving roadways, drainage, and erosion control along Modjeska Grade Road. The roadway improvements would include pavement rehabilitation, paved shoulders, the installation of a storm drain system, the installation of a retaining wall, and upgrading of guardrails. The project is located along Modjeska Grade Road, located within the eastern portion of unincorporated Orange County, approximately 2.2 miles north of State Route 241, in Modjeska Canyon. The project encompasses a 1.3 miles segment of Modjeska Grade Road from 100 feet south of the Markuson Road and Modjeska Canyon Road intersection to the East Santiago Canyon Road and Modjeska Grade Road intersection.	Notice of Intent to a Adopt Mitigated Negative Declaration	County of Orange	Document reviewed - No comments sent
	Comment Period: 8/5/2024- 9/5/2024 Public Hearing: N/A			
Institutional (schools, government, etc.)	The project consists of annexing 19.02 acres into the city limits and pre-zoning the property as	Notice of Intent	City of Duarte	Document
LAC240801-08 Royal Oaks Annexation	institutional. The proposed annexation would result in no development changes or improvements to the project site and the project site would continue to be used as a senior living facility. The project is located at 1763 Royal Oaks Drive North in unincorporated Los Angeles County, and within the City of Bradbury's Sphere of Influence.			reviewed - No comments sent
	Comment Period: 7/26/2024 - 8/26/2024 Public Hearing: 9/16/2024			
Institutional (schools, government, etc.)	The project consists of installing 11 stadium light poles and trenching an electrical utility line to	Notice of Intent	San Bernardino	Document
SBC240828-12 Paakuma Park Sports Lighting Project	the stadium light poles on 8.87 acres. The project also consists of demolishing and replacing fencing adjacent to the basketball courts and around the perimeter of the baseball/softball fields with similar fencing. The project is located at 17875 Sycamore Creek Loop Parkway (Assessor's Parcel Numbers: 111-601-213 and 111-601-214) in the City of San Bernardino.	to Adopt a Mitigated Negative Declaration	City Unified School District	reviewed - No comments sent
	Comment Period: 9/2/2024- 10/2/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT	
PROJECT TITLE		DOC.		STATUS	
Medical Facility	The project consists of constructing a 5,180 square-foot medical office building with an urgent	Site Plan /	City of Beaumont	Document	
<b>RVC240820-02</b> Dr. Bearie Urgent Care & Professional Office Building - PP2022-0455, ENV2022-0019, V2022-0105 thru -0107	care and obtaining three variances related to parking, setbacks and landscaping on 0.63 acres. The project is located on the southwest corner of Beaumont Avenue and Oak Valley Parkway on Assessor's Parcel Numbers: 415-031-002, -032, -033 and -034. Reference RVC230802-10	Response to Comments		reviewed - No comments sent	
	Comment Period: N/A Public Hearing: N/A				
<b>Retail</b> LAC240801-01 ENV-2023-6313: 9143 De Soto Self Storage Facility Project	The project consists of constructing a self-storage facility that includes four separate buildings totaling approximately 108,448 square feet including one caretaker's unit on 1.83 acres. The project is located north of Nordhoff Street, east of Independence Avenue, south Knapp Street, and west of De Soto Avenue at 9143 De Soto Avenue within the neighborhood of Chatsworth.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent	
	Comment Period: 7/25/2024 - 8/26/2024 Public Hearing: N/A				
ENV-2022-6208: 20032 Ventura	The project consists of demolishing an existing auto body repair shop and associated parking areas and constructing a 1,300 square feet restaurant with drive through windows, 203 square feet ancillary trash enclosure, and associated parking lot. The project is bounded by Ventura Boulevard to the north, commercial uses on the corner of Penfield Avenue and Ventura Boulevard to the east, an alleyway to the south, and Quakertown Avenue to the west. The project is located at 20032 West Ventura Boulevard within the neighborhood of Woodland Hills.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent	
	Comment Period: 7/25/2024 - 8/26/2024 Public Hearing: N/A				
Retail	The project consists of constructing a 206,756 square feet self-storage building with 551 rentable	Notice of	City of Long Beach	Under	
LAC240801-15 Pacific Place Project#	RV parking stalls and 41 automobile parking stalls on 14.20 acres. The project is located at 3701 Pacific Place near the northwest corner of North Pacific Place and Ambeco Road within the designated AB 617 Wilmington, Carson, West Long Beach community. Reference LAC230607-01	Availability of a Draft Environmental Impact Report		review, may submit comments	
	Comment Period: 7/31/2024 - 9/30/2024 Public Hearing: N/A				

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SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail LAC240813-03 First Citizens Bank#	The project consists of merging three parcels and constructing an approximately 12 foot, two-story office/bank building on 0.84 acre. The project is located north of Ea Road, east of Long Beach Boulevard, and west of Elm Avenue at 3450-3470 Long Boulevard. The project is also located in the designated AB 617 Wilmington, Carso Long Beach community. Reference LAC240716-06	Ast Wardlow Notice of Beach Preparation of	f an tal	Document reviewed - No comments sent
<i>Retail</i> LAC240828-07 529 Cutter Way Self Storage Project	Comment Period:7/16/2024 - 8/29/2024Public HearinThe project consists of constructing and operating a four-story self-storage facility tsquare feet on 2.55 acres.The facility would include 847 square feet of office spacesquare feet of storage space on the ground floor; and 45,896 square feet of storage sthe second, third, and fourth floors.The project would include 1,370 storage units.located at 529 Cutter Way in the City of Covina.	otaling 183,584 Notice of Int and 45,049 to Adopt a pace on each of Mitigated		Document reviewed - No comments sent
	Comment Period: 8/26/2024 - 9/25/2024 Public Hearin	ıg: N/A		
Retail RVC240801-06 Appeal No. PLN24-0121 of HOME2SUITES – Plot Plan (PP) No. PLN23-0069 and Conditional Use Permit (CUP) No. PLN23-0070	The project consists of constructing a 65,463 square foot hotel on two acres with 10 106 parking spaces. This project is located north of La Piedra Road, east of Intersta of Newport Road, and west of Antelope Road. Reference RVC240201-02 and RVC240516-02			Document reviewed - No comments sent
	Comment Period: N/A Public Hearin	g: 8/7/2024		
<b>Retail</b> <b>RVC240807-08</b> CUP 24-01: Stable Jiu Jitsu Riverside	The project consists of constructing a 1,725 square foot Jui Jitsu studio within a lar square foot building. The project is located at the northeast corner of Meridian Park Buren Boulevard within Suite 104 at 22300 Meridian Parkway.		March Joint Powers Authority	Document reviewed - No comments sent
	Comment Period: N/A Public Hearin	g: 8/14/2024		

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Retail RVC240807-15 Perris Gateway Project	The project consists of constructing 126,342 square feet of buildings on 20 acres. The project includes a180,478 square-foot self-storage, two 6,000 square-foot sit-down restaurants, six through fast-food restaurants totaling 18,400 square feet, 32 vehicle fueling positions across gas stations including 10,039 square feet of convenience store uses, and a 5,425 square-food wash building. The project is bounded by an existing warehouse to the north, Webster Aven the east, Ramona Expressway to the south, and on ramp to Interstate 215 to the west. The p is located northwest of the intersection of Ramona Expressway and Webster Avenue (APN 170-020, 314-170-023, and 314-180-024).	drive- s two bt car nue to broject 's: 314-	City of Perris	Comment letter sent on 9/3/2024
<i>Retail</i> <b>RVC240820-01</b> Pierson Commercial Specific Plan	Comment Period:         8/2/2024-9/3/2024         Public Hearing:         8/7/2           The project consists of constructing an eight-island fueling station, a 7,460 square-foot         convenience store with a drive-thru, a 1,790 square-foot drive-thru carwash, and a 2,000 sq foot quick service restaurant on 3.99 acres. The fueling station includes both gas and hydro, pumps. The project is located at the northwest corner of Pierson Boulevard and North India Canyon on Assessor's Parcel Number 664-080-017.	uare- gen Notice of Intent	City of Desert Hot Springs	Document reviewed - No comments sent
	Comment Period: 8/14/2024 - 9/13/2024 Public Hearing: N/A			
Retail RVC240821-14 Marketplace at Oak Valley (PP2024- 0043)	The project consists of constructing six commercial buildings totaling approximately 66,13 square feet on approximately 20 acres. The project would include a 47,000 square-foot grow store, a 5,000 square-foot convenience store and gas station, a 3,600 square-foot car wash, square feet of multi-tenant retail space, two restaurants with drive- thru with 5,000 square f 931 square feet respectively. The project is located at the northeast corner of Oak Valley Pa and Desert Lawn Drive (APN: 414-090-017).	cery 6,000 Seet and	City of Beaumont	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 9/5/2	024		

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) LAC240813-02 Park Tower Student Housing Project	The project consists of adaptively reusing an existing office building to construct 149 residential units totaling approximately 73,486 square feet. The project also consists of constructing a 728 square feet pavilion building and incorporating approximately 22,523 square feet of open space, 364 parking stalls, and 150 bicycle parking spaces. The project is bounded by Pacific Coast Highway to the north and east, East Anaheim Street to the south, and Clark Avenue to the west. The project is located at 5150 Pacific Coast Highway (APN: 7220-018-009).	Notice of Preparation of an Environmental Impact Report	City of Long Beach	Document reviewed - No comments sent
	Comment Period: 8/12/2024 - 9/13/2024 Public Hearing: 8/21/2024			
General Land Use (residential, etc.) LAC240821-06 Alexan Arroyo Mixed-Use Development Project	The project consists of demolishing three operational light industrial buildings, three operational school buildings, and surface parking areas; and constructing a new mixed-use development with density bonus consisting of 359 residential units as well as associated residential amenities and an aboveground parking garage on 3.11 acres. The project is located at 325 and 333 North Santa Anita Avenue and 400, 414, and 420 Rolyn Place. The project location includes all or portions of Assessor's Parcel Numbers (APNs) 5775-022-028, 5775-022-029, 5775-022-046, 5775-022-047, 5775-022-048, and 5775-022-049.	Notice of Preparation of an Environmental Impact Report / Other	City of Arcadia	Document reviewed - No comments sent
General Land Use (residential, etc.)	Comment Period:8/19/2024 - 9/19/2024Public Hearing:8/29/2024The project consists of constructing 360 residential units on 75.65 acres. The project is located at	Other	County of	Document
LAC240821-09 Royal Vista Residential Project	20100 Block of Colima Road and 19816 Walnut Drive, within the East San Gabriel Valley Planning Area. Reference LAC240529-06, LAC231101-06, and LAC221108-06		Los Angeles	reviewed - No comments sent
	Comment Period: N/A Public Hearing: 9/17/2024			
General Land Use (residential, etc.) LAC240821-13 ENV-2019-3937: Mirabel Transit Priority Project	The project consists of demolishing 38,545 square-foot of existing commercial buildings and constructing 348 residential units and 12,821 square feet of ground floor commercial uses. The project would include a total floor area of 476,777 square feet on 1.32 acres. The project is located at 5401-5425 Wilshire Boulevard, 664-670 Cochran Avenue, and 665-671 Cloverdale Avenue in the City of Los Angeles.	Notice of Completion and Availability of Draft Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 8/22/2024-10/7/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) ORC240801-05 2354 San Clemente Street Project	The project consists of removing an existing single-family residence, detached guest house, and associated site improvements, and constructing a 3,583 square foot single-family residence with attached 528 square foot two-car garage, elevated deck, pool and spa, hardscaping, and landscaping. The project also includes street improvements, including widening the northern portion of San Clemente Street to between 17 and 21 feet, terminating in a 32-foot-wide cul-de-sac. The project is located at 2354 San Clemente Street.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Laguna Beach	Document reviewed - No comments sent
General Land Use (residential, etc.) ORC240807-14 Greenbriar Residential Development	Comment Period:7/30/2024 - 8/29/2024Public Hearing: N/AThe project consists of demolishing an existing office building, parking structure, and parking lot, and constructing 180 attached residential units on 9.7 acres. The Project site is bounded by Greenbriar Lane to the north, the Fullerton Creek drainage channel and South Associated Road to	Notice of Preparation of a Draft	City of Brea	Document reviewed - No
	the east, the Brea Plaza Shopping Center to the south, and the State Route 57 to the west. The project is located at the southwest corner of South Associated Road and Greenbriar Lane, at 1698 through 1700 Greenbriar Lane in Brea (APN: 319-102-34). Comment Period: 8/1/2024- 9/3/2024 Public Hearing: 8/21/2024	Environmental Impact Report / Other		comments sent
General Land Use (residential, etc.) ORC240820-07 Hills Preserve Project	The project consists of constructing 504 residential units and 400,752 square feet of commercial uses on approximately 76 acres. The project is located along the south side of Santa Canyon Road, between Festival Drive to the east and Eucalyptus Drive to the west. Reference ORC240710-14 and ORC230906-15	Other	City of Anaheim	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
General Land Use (residential, etc.) ORC240828-01 Avalon Aliso Viejo	The project consists of removing existing surface parking, landscaping, and improvements; and constructing a mixed-use development consisting of 343 residential units and 17,273 square feet of ground floor commercial use within a six-story building, and associated parking and improvements on 4.4 acres. The mixed-use building would wrap around a centrally located eight-level parking structure with a subterranean parking garage (basement level B1) and rooftop residential amenity space. The project is located at 26501 Aliso Creek Road on Assessor's Parcel Number 629-101-16.	Mitigated Negative Declaration	City of Aliso Viejo	Document reviewed - No comments sent
	Comment Period: 8/26/2024 - 9/25/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.)	The project consists of developing a new residential infill development consisting of 56 three-	Notice of Intent	City of Anaheim	Document
ORC240828-05 The Mill Residential Townhome Project (DEV2023-00042)	story condominium townhomes ranging in size from approximately 1,200 to 1,800 square feet on 2.05 acres. The project is bounded by an existing alley to the north, South Olive Street to the east, East Santa Ana Street to the south, and South Claudine Street to the west. The project is located at 275 and 301 East Santa Ana Street on Assessor's Parcel Numbers: 037-024-11, and 037-111-29, and 037-111-30.	to Adopt a Mitigated Negative Declaration / Other		reviewed - No comments sent
	Comment Period: 8/15/2024 - 9/3/2024 Public Hearing: 9/23/2024			
General Land Use (residential, etc.)	The project consists of subdividing 55.4 acres into 325 single family condominium lots. The	Notice of Intent	City of Menifee	Document
RVC240807-02 Tentative Tract Map 38625 (PLN22- 0294) Salt Creek	project also consists of constructing a 4.9 acres City Park on the southern end of the project, adjacent to the Salt Creek Flood Channel. The project is located on the southwest corner of Simpson Road and Briggs Road (APN: 333-200-062). Reference RVC230110-01 Staff previously provided comments on the Site Plan for the project, which can be accessed at: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/january-2023/RVC230110-01.pdf. Comment Period: 8/4/2024- 9/3/2024 Public Hearing: 8/11/2024	to Adopt a Mitigated Negative Declaration / Other		reviewed - No comments sent
General Land Use (residential, etc.) RVC240807-04 TTM 38495, PP2023-0009, and AHDB2023-0001	The project consists of subdividing approximately 9.33 acres into 35 single family residential lots. The project would include a review of the Precise Plan and approval of a Density Bonus Housing Agreement application. The project is located east of Garretson Avenue and approximately 530 feet south of Santana Way (Assessor's Parcel Number: 120-020-022).	Notice of Intent to Adopt a Mitigated Negative Declaration / Other	City of Corona	Document reviewed - No comments sent
	Comment Period: 8/2/2024- 8/21/2024 Public Hearing: 8/26/2024			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION		TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE		6			
General Land Use (residential, etc.) RVC240809-03 Oak Valley North Specific Plan	The project consists of constructing 223 residential units, a church, and 982,232 squares business park uses on 110.2 acres. The project is located northeast of Interstate 10 and Boulevard, southeast of Singleton Road, and south of Beckwith Avenue. Reference RVC240717-07, RVC240328-01, and RVC230817-02		Other	City of Calimesa	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing:				
General Land Use (residential, etc.)	The project consists of requesting approval to construct 77 townhomes on 5.56 acres. is located at 8360 Limonite Avenue on Assessor's Parcel Numbers: 163-400-042, 163		Other	City of Jurupa	Document
RVC240809-04 MA24201 (Renaissance Townhome Project)	and 163-400-042-045.	5-400-044,		Valley	reviewed - No comments sent
General Land Use (residential, etc.)	Comment Period: N/A     Public Hearing:       The project consists of developing an industrial park consisting of multiple warehous		Notice of	City of Cathedral	Under
RVC240821-01 CV Commerce Center	totaling 7,964,750 square feet on 439.5 acres, and 27.94 acres of future Mixed Use – U) development. The project also includes 132.6 acres planned for stormwater detent retention and open space. The project is located north of Interstate 10, north and south Road, east of future extended DaVall Drive, and west of Rio del Sol.	Urban (MU- on and	Preparation of an Environmental Impact Report	City	review, may submit comments
	Comment Period: 8/21/2024-9/20/2024 Public Hearing:	N/A			
General Land Use (residential, etc.)	The project consists of modifying General Plan Amendment No. PLN21-0376, Chang		Notice of Intent	City of Menifee	Document
<b>RVC240821-12</b> Villagio Villas Apartment Building Addition	<ul> <li>No. PLN21-0377 and Plot Plan No. PLN21-0375 to construct 24 residential units tota square feet on a 0.82-acre portion of 6.99 acres. The project is located east of Intersta the southern terminus of Encanto Drive and south of McCall Boulevard at 28377 Enc (APN: 336-030-016).</li> <li>Reference RVC240522-06 and RVC211208-01</li> </ul>	te 215 near	to Adopt a Mitigated Negative Declaration		reviewed - No comments sent
	Comment Period: N/A Public Hearing:	8/21/2024			

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PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) RVC240828-11 Case No. CEQ240002	The project consists of requesting approval for a grading permit (BGR No. 2400062) for a 23 acre site within an approximately 79.2-acre property to allow for the excavation of approxim 184,000 cubic yards of soil from the grading permit site, which would be exported to an adja property located immediately northwest of the grading permit site. The project is located nor Newport Road, east of Briggs Road, south of Domenigoni Parkway, and west of La Ventana in the City of Menifee (Assessor's Parcel Number: 461-170-001).	hatelyto Adopt aacentMitigatedth ofNegative	County of Riverside	Document reviewed - No comments sent
	Comment Period: 8/28/2024-9/16/2024 Public Hearing: N/A			
General Land Use (residential, etc.) SBC240807-10 Villa Serena Specific Plan	The project consists of constructing 65 residential units on 9.16 acres. The project also inclue 1) modifying 6.85 acres of the 15th Street flood control basin to retain stormwater and flood control capacity; 2) extending 15th Street from the southwest corner of the project site to Campus Avenue; and 3) developing a 0.15-acre pocket park on 15th Street. The project encompasses the existing 20.3 acres 15th Street flood control detention basin located south o Upland Hills Country Club. The project is located near the southwest corner of East 15th Street and North Monte Verde Avenue (APNs: 1045-121-04 and 1045-151-35). Reference SBC240523-01 and SBC220217-04	Availability of a Recirculated Draft f the Environmental	City of Upland	Document reviewed - No comments sent
General Land Use (residential, etc.) SBC240821-04 Villa Serena Specific Plan	Comment Period:8/2/2024-9/16/2024Public Hearing:N/AThe project consists of constructing 65 residential units on 9.16 acres. The project also includ1) modifying 6.85 acres of the 15th Street flood control basin to retain stormwater and floodcontrol capacity; 2) extending 15th Street from the southwest corner of the project site toCampus Avenue; and 3) developing a 0.15-acre pocket park on 15th Street. The projectencompasses the existing 20.3 acres 15th Street flood control detention basin located south oUpland Hills Country Club. The project is located near the southwest corner of East 15th Streetand North Monte Verde Avenue (APNs: 1045-121-04 and 1045-151-35).Reference SBC240807-10, SBC240523-01 and SBC220217-04	Environmental Report Review Cancellation	City of Upland	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			

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PROJECT TITLE		DOC.		STATUS
Plans and Regulations ALL240820-05 Low Carbon Fuel Standard Regulation#	The project consists of modifying plans and policies to decrease carbon intensity of California's transportation fuel pool and increase range of low-carbon and renewable alternatives. This includes developing amendments to update the Low Carbon Fuel Standard and aligning it with the 2022 Climate Change Scoping Plan. The project has statewide applicability and includes six designated AB 617 communities: 1) East Los Angeles, Boyle Heights, West Commerce, 2) Eastern Coachella Valley, 3) San Bernardino, Muscoy, 4) Southeast Los Angeles, 5) South Los Angeles, and 6) Wilmington, Carson, West Long Beach. Reference ALL230214-08	Recirculated Draft Environmental Impact Analysis	California Air Resources Board	Document reviewed - No comments sent
	Comment Period: 8/16/2024 - 9/30/2024 Public Hearing: 8/18/2024			
Plans and Regulations	The project consists of amending the General Plan to adopt the 2021-2029 Housing Element	Notice of	City of Malibu	Document
LAC240801-10 General Plan Amendment No. 20-001, Local Coastal Program Amendment No. 24-001, and Zoning Text Amendment No. 24-002 (2021-2029 City of Malibu Sixth Cyle Housing Element Update)	Sixth Cycle update. The project includes conducting an analysis of the City's housing needs, opportunities and constraints, as well as developing policies and programs to facilitate the construction, rehabilitation, and preservation of housing for all economic segments of the population. The project is located citywide in the City of Malibu.	Availability of Local Coastal Program Amendment Materials / Other		reviewed - No comments sent
	Comment Period: N/A Public Hearing: 8/19/2024			
Plans and Regulations LAC240807-06 Zone Code Amendment (ZCA) - Sections 155.003, 155.519, 155.526, 155.527, 155.536, 155.537, Title 15, and Chapter 155	The project consists of amending Sections 155.003 (Definitions), 155.519 (Interstate 605 Corridor Electronic Billboard Sign Program), 155.526 (Comprehensive Sign Program Requirement for Unified Developments), 155.527 (Window Displays), 155.536 (Sign Guidelines), and add Section 155.537 (Static Poster Billboard Conversion Program) within Title 15 (Land Use), Chapter 155 (Zoning), of the Santa Fe Springs Municipal Code. The project is located citywide in the City of Santa Fe Springs.	Other	City of Santa Fe Springs	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 8/12/2024			

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PROJECT TITLE		DOC.		STATUS
Plans and Regulations LAC240807-13 Redondo Beach Focused General Plan, Zoning Ordinance Update and Local Coastal Program Amendment	The project consists of updating the City's General Plan to assess land use, housing needs, zoning codes, densities, and development standards with a planning horizon of 2050. The project encompasses 6.2 square miles and is bounded by Hermosa Beach, Manhattan Beach, and Hawthorne to the north, Torrance and Lawndale to the east, Palos Verdes Peninsula to the south, and the Pacific Ocean to the west. Reference LAC240724-09 and LAC230601-03	Amended Notice of Availability of a Draft Program Environmental Impact Report	City of Redondo Beach	Document reviewed - No comments sent
Plans and Regulations LAC240809-01 La Verne General Plan and Zoning Ordinance Update	Comment Period:8/1/2024- 9/16/2024Public Hearing: N/AThe project consists of updating the city's General Plan and Zoning Ordinance to develop policies, goals, and guidelines for housing, land use, transportation, and economic development elements with a planning horizon of 2045. The project encompasses 8.56 square miles and is bounded by unincorporated areas of Los Angeles to the north, Claremont to the east, and Pomona to the south, and San Dimas west. Reference LAC230510-01	Notice of Availability of a Draft Environmental Impact Report	City of La Verne	Document reviewed - No comments sent
	Comment Period: 8/8/2024-9/23/2024 Public Hearing: N/A			
Plans and Regulations LAC240821-05 Picture Culver City: General Plan 2045 and Zoning Code Update#	The project consists of adopting and implementing a comprehensive update to the Culver City General Plan and amending the City's Zoning Code to implement the General Plan Update to serve as a framework and guide for future planning-related decisions and development with a planning horizon of 2045. The project encompasses five square miles and is bounded by the City of Los Angeles to the north, south and west and unincorporated areas of Los Angeles County to the east. The project is also within the designated AB 617 South Los Angeles community. Reference LAC240402-04, LAC240221-15 and LAC220308-06 Staff previously provided comments on the Notice of Availability of a Draft Program Environmental Impact Report for the project, which can be accessed at: <u>https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/LAC240402-04.pdf</u>	Other	City of Culver City	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 8/26/2024			

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Plans and Regulations	The project consists of rescinding the existing Specific Plan and replacing it with a new Specific	Notice of	City of Perris	Comment
RVC240801-12 New Perris Commerce Center Specific Plan	Plan to construct approximately 3.7 million square feet of mixed-use retail, light industrial/minor accessory commercial, high-cube logistics and e-commerce uses. The New Perris Commerce Center Specific Plan area is divided into five planning areas comprised of nine parcels. Planning Area 1 a is designated for retail uses and Planning Area 1 b is designated for lighter use industrial park with minor accessory commercial uses and parking areas. Planning Area 2 is designated for industrial park, high cube logistics, with potential e-commerce uses, and auto and trailer parking areas. Planning Area 3 is designated for industrial park, high cube logistics, with potential e-commerce uses, and auto and trailer parking areas. Planning Area 3 is designated for industrial park, high cube logistics, with potential e-commerce uses and parking areas for autos and trailers. Planning Area 5 is designated as a proposed Undeveloped Area or open space/conservation area with approximately 111 acres dedicated for perpetual conservation in the Western Riverside County Multiple Species Habitat Conservation Plan. The project is located approximately 0.5 mile north of Interstate 215 and approximately two miles northwest of the Interstate 215/State Route 74 West interchange. The project is bordered by San Jacinto Avenue to the north, the Perris Valley Storm Drain channel to the east, and Ellis Avenue to the south.	Preparation of a Draft Environmental Impact Report / Other		letter sent on 8/16/2024
Direct and Descriptions	Comment Period: 7/26/2024 - 8/26/2024 Public Hearing: 8/7/2024	Nution	C'te CM and	Comment
Plans and Regulations RVC240807-16 MoVal 2040: The Moreno Valley Comprehensive General Plan Update, Municipal Code and Zoning (including Zoning Atlas) Amendments, and Climate Action Plan	The project consists of updates to the City's General Plan to develop design guidelines, policies, and programs to guide future development and a Climate Action Plan with a planning horizon of 2040. The project encompasses 51.47 square miles and is bounded by unincorporated areas of Riverside County to the north, east, and south and Interstate 215 to the west. Reference RVC210527-01 and RVC210406-01	Notice of Preparation of a Revised Environmental Impact Report / Other	City of Moreno Valley	Comment letter sent on 8/16/2024
	https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/rvc240807-16-nop-moval- 2040-the-moreno-valley-comprehensive-general-plan-update-municipal-coding-and-zoning-amendments-and- climate-action-plan.pdf Comment Period: N/A Public Hearing: 8/14/2024			

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1. Disposition may change prior to Governing Board Meeting

SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Plans and Regulations RVC240814-03 Park West - Specific Plan Amendment 24-05189 and General Plan Amendment 24-05188	The project consists of amending the Specific Plan to update the design standards and housing product segmentation for Phases 2 and 3 and allow for the maximum number of 2,027 residential lots on 534.3 acres. Housing product types include a mixture of 4,000 square-foot lots, 5,000 square-foot lots, 6,000 square foot-lots, clusters, condominium, townhomes, and apartments. The project also consists of requesting realignments associated with Phase 1 of Tentative Tract Map 31157. This will include the realignment of Evans Road, removal of Street "B," and the addition of an east/west connection via "D" Street on the south edge of PA8 and PA9. The project is located south of Nuevo Road, west of Dunlap Drive and Perris Valley Channel, and 500 feet west of Old Nuevo Road.	Other	City of Perris	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Plans and Regulations	The project consists of amending the Specific Plan to provide for Multiple Business (MBU), Commercial, water quality basin uses, and compliance with state housing regulations on 358.28	Notice of Preparation of a	City of Perris	Comment letter sent
RVC240814-04 Harvest Landing Retail Center & Business Park Project	acres. Development of the Specific Plan is proposed to occur in two phases. The site-specific plans for Phase 2 area are unknown and future entitlements will be needed to develop the 122.68- acres area. Phase 1 development consists of demolishing the existing residential structures to construct seven business park buildings totaling 1,239,079 square feet on 140.71 acres. The buildings include: one parcel hub, three high cube warehouses, and three light industrial buildings. The Shopping Center site consists of a retail building and eight retail pads totaling 250,457 square feet on 22.27 acres. The Commercial Big Box Retail site consists of a 167,050 square feet discount store, 12-pump gas station, and two 5,500 square feet fast food restaurants on 24.25 acres. The project is bounded by Placentia Avenue to the north, Perris Boulevard to the east, Nuevo Road to the south, and Interstate 215 to the west. https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/september-2024/rvc240814-04-nop- harvest-landing-retail-center-amp-business-park-project.pdf Comment Period: 8/9/2024 - 9/9/2024 Public Hearing: 8/21/2024	Draft Environmental Impact Report / Other		on 9/9/2024
Plans and Regulations RVC240821-02 Indian Wells General Plan Update	The project consists of updating the City's General Plan to respond to new state laws, changing conditions, and emerging issues and opportunities. The project includes design guidelines, framework for land use decisions, and guidance for potential future development with a planning horizon of 2045. The project is bounded by City of Palm Desert to the north and west, City of La Quinta to the east, and City of Santa Rosa and San Jacinto National Monument to the south. The project is located citywide in the City of Indian Wells.	Notice of Preparation of a Programmatic Draft Environmental Impact Report	City of Indian Wells	Document reviewed - No comments sent

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1. Disposition may change prior to Governing Board Meeting

#### ATTACHMENT A ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW August 1, 2024 to August 31, 2024

SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION		TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE			DOC.		STATUS
Plans and Regulations RVC240821-08 The Triangle Specific Plan	The project consists of modifying Specific Plan Amendment 2023. 2022-2706, and Development Plan 2022-2705 to allow uses within building and landscape setbacks, and changes to various administr. The project also consists of subdividing 64.3 acres into 23 lots and constructing a 279,538 square foot commercial retail center on app project is located within Specific Plan 276 and is bordered by Mur north and in between the convergence of Interstate 15 and Interstate through 910-390-003, 910-390-008 through -018, 910-390-020 thr 400-001 through -018). Reference RVC130813-06 and RVC130212-01	the plan area, modify certain tive elements within the plan. five lettered lots and roximately 36.5 acres. The tieta Hot Springs Road to the e 215 (APNs: 910-390-001	Other	City of Murrieta	Document reviewed - No comments sent
	Comment Period: N/A	Public Hearing: 8/20/2024			
Plans and Regulations SBC240807-09 PSP22-011 and PDA23-004 (Euclid Mixed Use Specific Plan Project)	The project consists of establishing a Specific Plan (PSP22-001 - I Plan) to construct 466 residential units, 290,110 square feet of com square feet of business park uses on 84 acres. The project also incl Agreement (PDA23-004) between the City of Ontario and Euclid I establish terms and conditions associated with Tentative parcel Ma PMTT23-005). The project is located north of Edison Avenue, eas Schaefer Avenue, and west of Sultana Avenue. Reference SBC240724-06, SBC240103-01 and SBC230214-07	mercial uses, and 1,386,776 ides a Development and Investment, LLC to p No. 20714 (File No.	Other	City of Ontario	Document reviewed - No comments sent
	Comment Period: N/A	Public Hearing: 8/20/2024			

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1. Disposition may change prior to Governing Board Meeting

SOUTH COAST AOMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE	I ROJECI DESCRI HON	DOC.	LEAD AGENCI	STATUS
Waste and Water-related LAC240724-05 Draft Hazardous Waste Operation and Post-Closure Permits for Ecobat Resources California, Inc. (formerly Quemetco, Inc.)	The project consists of two draft permits for the battery-recycling facility Ecobat Resources California, Inc. (Ecobat), that would impose stricter standards and increase financial assurance funding to protect public health and the environment in Los Angeles County. The first draft permit, the proposed renewal of the facility's "Operating Permit," has a five-year term and includes several mandatory conditions to protect the surrounding area and the environment. The second draft permit, the "Post-Closure Permit" is required to ensure that Ecobat will continue monitoring groundwater around two closed areas onsite for at least 13 more years. The project is located at 720 South Seventh Avenue near the northeast corner of South Seventh Avenue and Salt Lake Avenue in the City of Industry. Reference LAC231101-18, LAC231011-07, LAC230606-03, LAC230418-08, LAC220621-11, LAC220301-09, LAC211001-05, LAC210907-04, LAC210907-03, LAC210427-09, LAC210223- 04, LAC210114-07, LAC191115-02, and LAC180726-06 Comment Period: 7/16/2024- 11/18/2024 Public Hearing: 9/14/2024	Other	Department of Toxic Substances Control (DTSC)	Under review, may submit comments
Warehouse & Distribution Centers	The project consists of constructing a 1,320,284 square foot warehouse on 131.28 acres. The	Notice of	City of Banning	Comment
Banning Commerce Center Project	project site is bounded by vacant lands to the north, California Highway Patrol Banning West Weigh Station to the east, Interstate 10 to the south, and vacant lands to the west. The project is located at the southwest corner of North Hathaway Street and Morongo Road. Reference RVC220906-03 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: http://www.aqmd.gov/docs/default-source/ceqa/comment- letters/2022/september/RVC220906-03.pdf https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/rvc240618-01-deir- banning-commerce-center-project.pdf Comment Period: 6/17/2024- 8/2/2024 Public Hearing: N/A	Availability of a Draft Environmental Impact Report		letter sent 8/1/2024
Warehouse & Distribution Centers	The project consists of constructing a 1,003,510 square feet warehouse on 44.66 acres and a	Notice of	County of Riverside	
<b>RVC240719-04</b> Cajalco Commerce Center – Foundation General Plan Amendment No.240005, Change of Zone No. 2200062, Plot Plan No. 220050, and Tentative Parcel Map No. 38601	public park on 13.33 acres. The warehouse is located north of Rider Street, east of Decker Road, south of Cajalco Road, and west of Seaton Avenue. The public park is located both east and west of Decker Road, approximately 185 feet south of the warehouse building. The 64.97 acres Project Site and up to approximately 21.82 acres of off-site Project-related disturbance areas are located within the western region of unincorporated Riverside County within the Mead Valley Area Plan (MVAP). Reference RVC230719-04 and RVC230712-02 https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/september-2024/rvc240719-04-draft- eir-cajalco-commerce-center-project.pdf Comment Period: 7/19/2024 - 9/3/2024 Public Hearing: N/A	Availability of a Draft Environmental Impact Report		letter sent 9/3/2024

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Notes:

1. Disposition may change prior to Governing Board Meeting

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SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers SBC240626-04 Ninth and Vineyard Development Project	The project consists of constructing three warehouses totaling 982,096 square feet on 45.97 acres. The project is located near the southeast corner of East Ninth Street and Vineyard Avenue. Reference SBC220317-05 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/sbc240626-04-recirculated- deir-ninth-and-vineyard-development-project.pdf Comment Period: 6/20/2024- 8/5/2024 Public Hearing: N/A	Notice of Availability of a Recirculated Draft Environmental Impact Report	City of Rancho Cucamonga	Comment letter sent 8/1/2024
Industrial and Commercial RVC240716-04 Baker Street Warehouse Project	The project consists of constructing an approximately 212,028 square-foot warehouse (Building 1) with a 5,000 square-foot ground-level office space and 5,000 square-foot office mezzanine and a 788,423 square-foot warehouse (Building 2) with a 10,000 square-foot ground-level office space and 10,000 square-foot office mezzanine with employee/visitor and trailer parking on 125.22 acres. The project also includes improvement of off-site utilities and public roadways, a restoration area to be used for future conservation and restoration activities, and a construction buffer between Baker Street and the restoration area. The project is located on the southeast and southwest intersection of Baker Street and Pierce Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/rvc240716-04-nop-baker-street-warehouse-project.pdf Comment Period: 7/19/2024 - 8/19/2024 Public Hearing: 8/1/2024	Notice of Preparation of a Draft Environmental Impact Report	City of Lake Elsinore	Comment letter sent 8/19/2024
Industrial and Commercial RVC240724-03 Menifee Business Park – Plot plan No. PLN23-0245	The project consists of developing a commercial/industrial business park that includes eleven buildings ranging in size from approximately 23,100 square feet to 37,840 square feet (total 337,770 square feet), 677 parking spaces, and 121,879 square feet of irrigated landscaped area on approximately 20 acres. The project also includes two driveways along Zeiders Road with the southernmost driveway being signalized and aligning with Scott Road Commerce Center. The project is located north of Keller Road, east of Howard Way, south of Scott Road, and west Zeiders Road (APN: 384-150-001). http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/rvc240724-03-nop- menifee-business-park-project.pdf Comment Period: 7/15/2024 - 8/13/2024	Notice of Preparation of a Draft Environmental Impact Report / Other	City of Menifee	Comment letter sent 8/8/2024
Waste and Water-related LAC240717-10 Valencia Water Reclamation Plant Middle Section Retaining Wall Ground Improvement Project	The project consists of constructing a new ground retaining wall structure to fortify the middle section of the wall and updating two existing outfall structures on 3.26 acres. The project is located at 28185 The Old Road in Valencia. Reference LAC231201-08 <u>https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/lac240717-10-deir- valencia-water-reclamation-plant-middle-section-retaining-wall-ground-improvement-project.pdf</u> Comment Period: 7/17/2024 - 9/3/2024 Public Hearing: 8/14/20	Notice of Availability of a Draft Environmental Impact Report / Other	Santa Clarita Valley Sanitation District	Comment letter sent 8/30/2024

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SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Waste and Water-related LAC240724-11 North County Solid Waste Collection Services Project	The project consists of implementing contracts with solid wastes haulers to establish either residential and commercial franchises or garbage disposal districts in Acton/Agua Dulce, Antelope Valley Central, Antelope Valley East, and Antelope Valley West. The project encompasses approximately 1,419 square miles and comprises unincorporated areas in northern Los Angeles County, located north of the Angeles National Forest. The project is bounded by Kern County to the north, San Bernardino County to the east, Angeles National Forest to the south, and Ventura County to the west. Reference LAC230207-11 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: <a href="https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/march-2023/LAC230207-11.pdf">https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/march-2023/LAC230207-11.pdf</a> .	Notice of Availability of a Draft Environmental Impact Report / Other	County of Los Angeles Department of Public Works	Comment letter sent 9/5/2024
	https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/september-2024/lac240724-11-draft- eir-north-county-solid-waste-collection-services-project.pdf Comment Period: 7/18/2024-9/5/2024 Public Hearing: 8/17/2024			
Retail	The project consists of constructing and operating a travel center facility for regional and local highway traveling users on 14.4 acres. The project also includes the development of fueling	Draft	City of Perris	Comment
<b>RVC240709-06</b> Perris Ethanac Travel Center Project	facilities, travel amenities, a drive-thru restaurant, and parking facilities for passing motorists and commercial truck operators. The project also consists of requesting approval for a Conditional Use Permit (CUP) to allow for the proposed passenger/truck fueling station and drive-thru restaurant. The project also includes the requirement of a variance to allow for a larger pole sign and increased height within the northwest corner of the site due to visibility restrictions associated with the Ethanac overpass. The project is located on the northwest corner of Trumble Road and Ethanac Road. Reference RVC240201-03	Files		letter sent 8/16/2024
	https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/rvc240709-06-deir-perris- ethanac-travel-center-project.pdf Comment Period: 7/5/2024- 8/19/2024 Public Hearing: N/A			

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SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.)	The project consists of two buildout scenarios on 183 acres: 1) Maximum Buildout Scenario	Notice of	City of Indio	Comment
<b>RVC240627-01</b> The Oasis at Indio Project	(MBS), which results in building 3,240 dwelling units, 20,000 square feet of retail, commercial uses, and 1,806,290 square feet of industrial development; and 2) Scenario #2 or lesser buildout, which results in building 1,327 dwelling units, 71,600 square feet of retail commercial uses, a 128 key hotel/motel, and 1,806,290 square feet of industrial uses. The project is located north of the Interstate 10 freeway, east of Madison Street, south of Avenue 42, and west of Monroe Street. Reference RVC240514-01	Availability of a Draft Environmental Impact Report		letter sent 8/8/2024
	Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: <u>http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240514-01-nop-the-oasis-at-indio-project.pdf</u>			
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/august-2024/rvc240627-01-deir-the- oasis-at-indio-project.pdf Comment Period: 6/25/2024 - 8/9/2024 Public Hearing: N/A			

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Notes:

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#### ATTACHMENT C PROPOSED AIR PERMIT PROJECTS FOR WHICH SOUTH COAST AQMD IS CEQA LEAD AGENCY THROUGH AUGUST 31, 2024

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Quemetco is proposing to modify its existing South Coast AQMD permits to allow the facility to recycle more batteries and to eliminate the existing daily idle time of the furnaces. The proposed project will increase the rotary feed drying furnace feed rate limit from 600 to 750 tons per day and increase the amount of total coke material allowed to be processed. In addition, the project will allow the use of petroleum coke in lieu of or in addition to calcined coke and remove one existing emergency diesel-fueled internal combustion engine (ICE) and install two new emergency natural gas-fueled ICEs.	Quemetco	Environmental Impact Report (EIR)	The Draft EIR was released for a 124-day public review and comment period from October 14, 2021 to February 15, 2022 and approximately 200 comment letters were received. South Coast AQMD held two community meetings on November 10, 2021, and February 9, 2022, which presented an overview of the proposed project, the CEQA process, detailed analysis of the potentially significant environmental topic areas, and the existing regulatory safeguards. Response to written comments submitted relative to the Draft EIR and oral comments made at the community meetings are currently being prepared by the consultant. After the Draft EIR public comment and review period closed, Quemetco submitted additional applications for other permit modifications. South Coast AQMD staff is evaluating the effect of these new applications on the EIR process.	Trinity Consultants
Sunshine Canyon Landfill is proposing to modify its South Coast AQMD permits for its active landfill gas collection and control system to accommodate the increased collection of landfill gas. The proposed project will: 1) install two new low-emission flares with two additional 300-horsepower electric blowers; and 2) increase the landfill gas flow limit of the existing landfill gas collection system.	Sunshine Canyon Landfill	Subsequent Environmental Impact Report (SEIR)	The consultant is working on a Draft SEIR which South Coast AQMD staff is reviewing.	Castle Environmental Consulting
Tesoro is proposing to modify its Title V permit to: 1) add gas oil as a commodity that can be stored in three of the six new crude oil storage tanks at the Carson Crude Terminal (previously assessed in the May 2017 Final EIR); and 2) drain, clean and decommission Reservoir 502, a 1.5-million-barrel concrete-lined, wooden-roof topped reservoir used to store gas oil.	Tesoro Refining & Marketing Company, LLC (Tesoro)	Addendum to the Final Environmental Impact Report (EIR) for the May 2017 Tesoro Los Angeles Refinery Integration and Compliance Project (LARIC)	South Coast AQMD staff review of the revised Draft Addendum is complete. South Coast AQMD staff is preparing the Draft Title V Permit Revision for review by the United States Environmental Protection Agency.	Environmental Audit, Inc.

#### ATTACHMENT C PROPOSED AIR PERMIT PROJECTS FOR WHICH SOUTH COAST AQMD IS CEQA LEAD AGENCY THROUGH AUGUST 31, 2024

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
SoCalGas is proposing to modify their Title V permit for the Honor Rancho Natural Gas Storage Field to: 1) replace five compressor engines with four new natural gas-fueled compressor engines (each rated at 5,000 horsepower (hp)), new selective catalytic reduction systems and a new aqueous urea storage tank; 2) install two new electric compressors (each rated at 5,500 hp) with associated ancillary equipment; 3) construct a new building to house the new compressors; 4) install an advanced renewable energy system, which will include hydrogen electrolyzers, hydrogen storage, and fuel blending equipment to mix hydrogen with natural gas which will fuel the compressor engines; 5) install a hydrogen vehicle fueling station; 6) install an electric microgrid with an energy storage system and a natural gas fuel cell system; and 7) install one new electricity transmission line which will connect to Southern California Edison.	(SoCalGas)	Addendum to the Final Subsequent Environmental Assessment for Rule 1110.2 and Rule 1100, and the Final Program EIR for the 2016 Air Quality Management Plan	The consultant has prepared a preliminary Draft Addendum which South Coast AQMD staff is reviewing.	Dudek

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 13

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights South Coast AQMD rulemaking activities and public hearings scheduled for 2024.

COMMITTEE: No Committee Review

RECOMMENDED ACTION: Receive and file.

Wayne Nastri Executive Officer

SLR:MK:IM:JA:ZS

## 2024 MASTER CALENDAR

The 2024 Master Calendar provides a list of proposed or proposed amended rules for each month, with a brief description, and a notation in the third column indicating if the rulemaking is for an AQMP, either the 2016 AQMP or 2022 AQMP, when adopted, Toxics, AB 617 (for BARCT) or measures identified in an AB 617 Community Emission Reduction Plan (CERP), SIP to address comments or actions from U.S. EPA for a rule that is in an approved SIP, or Other. Rulemaking efforts that are noted for implementation of the 2016 AQMP or 2022 AQMP when adopted, Toxics, and AB 617 are either statutorily required and/or are needed to address a public health concern. Projected emission reductions will be determined during rulemaking.

The following symbols next to the rule number indicate if the rulemaking will be a potentially significant hearing, will reduce criteria pollutants, or is part of the RECLAIM transition. Symbols have been added to indicate the following:

- \* This rulemaking may have a substantial number of public comments.
- + This rulemaking will reduce criteria air contaminants and assist toward attainment of ambient air quality standards.
- <sup>#</sup> This rulemaking is part of the transition of RECLAIM to a command-and-control regulatory structure.

The following table provides a list of changes since the previous Rule Forecast Report.

## 1445 Control of Toxic Emissions from Laser and Plasma Arc Metal Cutting

Proposed Rule 1445 is being moved from November to December 2024 to allow additional time for staff to work with stakeholders to resolve remaining issues.

2304 Commercial Marine Ports – Container Terminals
316.1 Fees for Rule 2304

Proposed Rules 2304 and 316.1 are being moved from December to First Quarter 2025 to allow additional time for staff to work with stakeholders.

Regulation XIII New Source Review

Proposed Amended Regulation XIII is being moved from December to Third Quarter 2025 to allow additional time for staff to work with stakeholders.

## **Regulation XX RECLAIM**

Proposed Amended Regulation XX is being moved from December to Third Quarter 2025 to allow additional time for staff to work with stakeholders.

2024 MASTER	CALENDAR
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November         International Description         Rulemaking           1151         Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations Proposed Amended Rule 1151 will provide clarifications of current requirements and amend provisions to address implementation issues. Headwer Fare 909.396.3072: CEQA and Socie: Barbara Radlein 909.396.2716         Other / AB 617 CERP           1173+         Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morits'009.396.232: CEQA and Socie: Barbara Radlein 909.396.2716         AQMP / AB 617 CERP           December         Title and Description         Type of Rulemaking           1111         Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces         AQMP           Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Headwer Fare 909.396.3072; CEQA and Socie: Barbara Radlein 909.396.2716         AQMP           1121*         Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters. Headwer Fare 909.396.3072; CEQA and Socie: Barbara Radlein 909.396.2716         AQMP / AB 617           1159.1*         Control of NOX Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOX emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilitites. Kalow Chewage 909.396.37276         AQMP	Month		Type of
Coating Operations       AB 617 CERP         Proposed Amended Rule 1151 will provide clarifications of current requirements and amend provisions to address implementation issues.       AB 617 CERP         1173*       Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants       AQMP /         Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions.       AB 617 CERP         December       Title and Description       Type of Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating.       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired, Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters.       AQMP         1121*       Control of NX Emissions from Nitric Acid Tanks       AQMP /         Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities.       AQMP /         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1159.1 will establish requirements to reduce heavalent thromium and other metal toxic air contaminant particulate emissions from l	November	Title and Description	
Proposed Amended Rule 1151 will provide clarifications of current requirements and amend provisions to address implementation issues.       AQMP         1173+       Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants       AQMP / AB 617 CERP         1173+       Control of Volatile Organic Compound Leaks and Releases from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morris 909.396.3282; CEQA and Socie: Barbara Radlein 909.396.2716       AQMP / AB 617 CERP         December       Title and Description       Type of Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating.       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired, Fan-Type (Proposed amendments may be needed to further reduce NOx emissions from water heaters.       AQMP         Proposed amendments may be needed to further reduce NOx emissions from Nitric Acid Tanks       AQMP / AB 617         1159.1*       Control of NOx Emissions from Nitric Acid Tanks       AQMP / AB 617         1159.1*       Control of Nox Emissions from Nitric Acid Tanks       AQMP / AB 617         1159.1*       Control of NOx Emissions from Nitric Acid Tanks       AQMP / AB 617         1159.1*       Control of NOx Emi	1151	Motor Vehicle and Mobile Equipment Non-Assembly Line	Other /
requirements and amend provisions to address implementation issues.       Interver Fair 900.396.3672; CEQA and Socie: Barbara Radiein 900.396.2716         1173 <sup>+</sup> Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morris 909.396.322; CEQA and Socie: Barbara Radiein 909.396.2716       AQMP / AB 617 CERP         December       Title and Description       Type of Rulemaking         1111       Reduction of NOX Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Far 909.396.3672; CEQA and Socio: Barbara Radiein 909.396.2716       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Far 909.396.372; CEQA and Socio: Barbara Radiein 909.396.2716       AQMP         1159.1#       Control of NOX Emissions from Nitric Acid Tanks Proposed Rule 1159, 1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheang 909.396.3281; CEQA and Socie: Barbara Radiein 909.396.2716       AQMP / AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from l		Coating Operations	AB 617 CERP
issues.       Heather Farr 909.396.3672; CEQA and Socie: Barbara Radicin 909.396.2716       AQMP /         1173*       Control of Volatile Organic Compound Leaks and Releases from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morris 909.396.322; CEQA and Socie: Barbara Radiein 909.396.2716       AB 617 CERP         December       Title and Description       Type of Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP /         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Far 909.396.372; CEQA and Socie: Barbara Radlein 909.396.2716       AQMP /         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters Proposed amendments may be needed to further reduce NOx emissions from Water heaters. Heather Far 909.396.372; CEQA and Socie: Barbara Radlein 909.396.2716       AQMP /         1159.1*       Control of Nox Emissions from Nitric Acid Tanks Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Far 909.396.372; CEQA and Socie: Barbara Radlein 909.396.2716       AQMP /         1159.1*       Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheang 909.396.3781; CEQA and Socie: Barbara Radlein 909.396.2716       AQMP /         1445*       Control of Toxic Emission		Proposed Amended Rule 1151 will provide clarifications of current	
Heather Farr 900.396.3672: CEQA and Socie: Barbara Radlein 909.396.3716           11173 <sup>+</sup> Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morris 909.396.3282: CEQA and Socio: Barbara Radlein 909.396.2716         Type of Rulemaking           December         Title and Description         Type of Rulemaking           1111         Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces         AQMP           Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Far 909.396.3672: CEQA and Socia: Barbara Radlein 909.396.2716         AQMP           1121*         Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Far 909.396.3672: CEQA and Socia: Barbara Radlein 909.396.2716         AQMP           1159.1 <sup>#</sup> Control of NOX Emissions from Nitric Acid Tanks Proposed amendments may be needed to further reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheang 909.396.3281; CEQA and Socia: Barbara Radlein 909.396.2716         AQMP / AB 617           1445*         Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1145 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from Lase		requirements and amend provisions to address implementation	
1173 <sup>+</sup> Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. <i>Michael Morris 909.396.3282: CEQA and Socio: Barbara Radlein 909.396.2716</i> AB 617 CERP         December       Title and Description       Type of Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. <i>Heather Far 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i> AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendents may be needed to further reduce NOx emissions from water heaters. <i>Heather Far 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i> AQMP         1159.1*       Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from intric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. <i>Kalam Chewng 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i> AQMP / AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics / AB 617 CERP   <		issues.	
Components at Petroleum Facilities and Chemical Plants       AB 617 CERP         Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morris 909.396.3282: CEQA and Socie: Barbara Radlein 909.396.2716       Type of Rulemaking         December       Title and Description       Type of central Furnaces         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Iteather Farr 909.396.3672: CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672: CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1159.1*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP / AB 617         1159.1*       Control of Nox Emissions from Nitric Acid Tanks       AQMP / AB 617         1159.1*       Control of NOX Emissions from Nitric Acid Tanks       AQMP / AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting       AB 617 CERP         Proposed Rule 1159.1 will establish requirements to reduce hox emissions from intric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Katam Cheurg 903.393.3281: CEQA and Socie: Barbara Radlein 909.396.2716       AB 617	1150		
Proposed Amended Rule 1173 will further reduce emissions from petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions.       Type of Rulemaking         December       Title and Description       Type of Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating.       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters.       AQMP /         1159.1#       Control of Nox Emissions from Nitric Acid Tanks       AQMP /         Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities.       AB 617         1445*       Control of Toxic Emissions from Laser Arc Cuting Proposed Rule 1445 will establish requirements to reduce heater heater for 909.396.321; CEQA and Socie: Barbara Rudlein 909.396.2716       AB 617 CERP	1173+		
petroleum and chemical plants by requiring early leak detection approaches, and include contingency provisions. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716       Type of Rulemaking         December       Title and Description       AQMP         Central Furnaces       AQMP       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1159.1#       Control of NOx Emissions from Nitric Acid Tanks Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP / AQMP         1159.1#       Control of NOx Emissions from Nitric Acid Tanks Fired Water Heaters. Heather Farr 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP / AB 617         11445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1145 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheang 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716       Toxics / AB 617 CERP         1445*       Control of Toxic Emissio		-	AB 617 CERP
approaches, and include contingency provisions. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716       Type of Rulemaking         December       Title and Description       Type of Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1159.1#       Control of NOx Emissions from Nitric Acid Tanks       AQMP / AQMP / Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheang 909.396.321; CEQA and Socio: Barbara Radlein 909.396.2716       AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics / AB 617 CERP		Proposed Amended Rule 1173 will further reduce emissions from	
Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716       Type of Rulemaking         December       Title and Description       AQMP         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating.       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters.       AQMP         1159.1*       Control of NOx Emissions from Nitric Acid Tanks       AQMP /         Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities.       AQMP /         1445*       Control of Toxic Emissions from Laser Arc Cutting       Toxics /         Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics /		petroleum and chemical plants by requiring early leak detection	
December         Type of Rulemaking           1111         Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces         AQMP           Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716         AQMP           1121*         Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters         AQMP           Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716         AQMP           1159.1#         Control of Nox Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Chewng 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716         AQMP / AB 617           1445*         Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.         Toxics / AB 617 CERP			
December       Ittle and Description       Rulemaking         1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1159.1#       Control of NOx Emissions from Nitric Acid Tanks       AQMP / AProposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Chewng 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716       AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics / AB 617 CERP		Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1111       Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces       AQMP         Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1159.1#       Control of NOx Emissions from Nitric Acid Tanks       AQMP / AB 617         Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheang 909.396.381; CEQA and Socio: Barbara Radlein 909.396.2716       AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics / AB 617 CERP	December	Title and Description	
Central Furnaces       Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating.       Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters.       AQMP         Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP         1159.1#       Control of NOx Emissions from Nitric Acid Tanks       AQMP /         Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities.       AB 617         1445*       Control of Toxic Emissions from Laser Arc Cutting       Toxics /         Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics /	December		Rulemaking
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control measure R-CMB-02 requiring zero emission residential space heating. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716AQMP1121*Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716AQMP1159.1#Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716AQMP / AB 6171445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics / AB 617 CERP		Central Furnaces	
space heating.       Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP /         1159.1#       Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP /         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics /		Proposed Amended Rule 1111 will implement the 2022 AQMP	
space heating.       Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716         1121*       Control of Nitrogen Oxides from Residential Type, Natural-Gas- Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP /         1159.1#       Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716       AQMP /         1445*       Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.       Toxics /		control measure R-CMB-02 requiring zero emission residential	
Image: International control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP         International control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters       AQMP         Proposed amendments may be needed to further reduce NOx emissions from water heaters.       AQMP         Int59.1#       Control of NOx Emissions from Nitric Acid Tanks       AQMP /         Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities.       AB 617         Int445*       Control of Toxic Emissions from Laser Arc Cutting       Toxics /         Proposed Rule 1445 will establish requirements to reduce       AB 617 CERP         Int445*       Control of Toxic Emissions from Laser Arc Cutting       AB 617 CERP         Proposed Rule 1445 will establish requirements to reduce       AB 617 CERP			
Fired Water Heaters         Proposed amendments may be needed to further reduce NOx         emissions from water heaters.         Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716         1159.1#       Control of NOx Emissions from Nitric Acid Tanks         Proposed Rule 1159.1 will establish requirements to reduce NOx         emissions from nitric acid units that will apply to RECLAIM, former         RECLAIM, and non-RECLAIM facilities.         Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716         1445*         Control of Toxic Emissions from Laser Arc Cutting         Proposed Rule 1445 will establish requirements to reduce         hexavalent chromium and other metal toxic air contaminant         particulate emissions from laser arc cutting.		Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
Proposed amendments may be needed to further reduce NOx emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716AQMP /1159.1#Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716AQMP / AB 617 BARCT1445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics / AB 617 CERP	1121*		AQMP
emissions from water heaters. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716AQMP /1159.1#Control of NOx Emissions from Nitric Acid TanksAQMP /Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716AB 6171445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics /		Fired Water Heaters	
Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.27161159.1#Control of NOx Emissions from Nitric Acid TanksAQMP / AB 617Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716BARCT1445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics / AB 617 CERP		Proposed amendments may be needed to further reduce NOx	
1159.1#Control of NOx Emissions from Nitric Acid TanksAQMP / AB 617Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716BARCT1445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.AQMP / AB 617			
Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716AB 617 BARCT1445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics / AB 617 CERP	1150 1#		
emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716BARCT1445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics / AB 617 CERP	1159.1*		-
RECLAIM, and non-RECLAIM facilities.       Reclaim Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716         1445*       Control of Toxic Emissions from Laser Arc Cutting       Toxics /         Proposed Rule 1445 will establish requirements to reduce       AB 617 CERP         hexavalent chromium and other metal toxic air contaminant       particulate emissions from laser arc cutting.			
Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.27161445*Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics / AB 617 CERP			BARCT
1445*Control of Toxic Emissions from Laser Arc CuttingToxics /Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.Toxics /			
Proposed Rule 1445 will establish requirements to reduce AB 617 CERP hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.	1//5*		Toxics /
hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.	1443	_	
particulate emissions from laser arc cutting.			AD UI / CEKP
		<i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i>	

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

## 2024 To-Be-Determined

2024	Title and Description	Type of Rulemaking
102	Definition of Terms	Other
	Proposed amendments may be needed to update and add definitions,	
	and potentially modify exemptions.	
103	TBD; CEQA and Socio: Barbara Radlein 909.396.2716 Definition of Geographical Areas	Other
103	Proposed amendments are needed to update geographic areas to be	Other
	consistent with state and federal references to those geographic areas.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
209	Transfer and Voiding of Permits	Other
	Proposed amendments may be needed to clarify requirements for	
	change of ownership and permits and the assessment of associated	
	fees.	
222	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	
223	Emission Reduction Permits for Large Confined Animal	AQMP
	Facilities	
	Proposed Amended Rule 223 will seek additional ammonia emission	
	reductions from large, confined animal facilities by lowering the	
	applicability threshold. Proposed amendments will implement BCM-	
	04 in the 2016 AQMP.	
403	TBD; CEQA and Socio: Barbara Radlein 909.396.2716 Fugitive Dust	Other
105	Proposed Amended Rule 403 will seek to remove outdated provisions	Other
	and clarify existing provisions to enhance compliance.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
403.1	Supplemental Fugitive Dust Control Requirements for Coachella	Other
	Valley Sources	
	Proposed Amended Rule 403.1 will clarify existing requirements for	
	dust control and remove outdated provisions contained in supporting	
	documents for Rule 403.1.	
4.0 <b>-</b> #	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
407#	Liquid and Gaseous Air Contaminants	AB 617
	Proposed Amended Rule 407 will update SOx emission limits to	BARCT
	reflect Best Available Retrofit Control Technology, if needed,	
	remove exemptions for RECLAIM facilities, and update monitoring,	
	reporting, and recordkeeping requirements.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024	Title and Description	Type of Rulemaking
410	Odors from Transfer Stations and Material Recovery Facilities	Other
	Proposed Amended Rule 410 will clarify existing provisions.	
	Additional provisions may be needed to address activities	
	associated with diversion of food waste to transfer stations or	
	material recovery facilities.	
405	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	0.1
425	Odors from Cannabis Processing	Other
	Proposed Rule 425 will establish requirements for control of odors	
	from cannabis processing. TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
430	Breakdown Provisions	RECLAIM /
150	Amendments to Rule 430 will be needed to remove exemptions for	Other
	facilities that exit the RECLAIM program and update references to	oulor
	CEMS rules. Other amendments may be needed to address current	
	policies from U.S. EPA regarding startup, shutdown, and	
	malfunction requirements.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
431.1#	Sulfur Content of Gaseous Fuels	AB 617
	Proposed Amended Rule 431.1 will assess exemptions, including	BARCT /
	RECLAIM, and update other provisions, if needed.	AB 617 CERP
421.2#	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
431.2#	Sulfur Content of Liquid Fuels	AB 617
	Proposed Amended Rule 431.2 will assess exemptions, including	BARCT /
	RECLAIM, and update other provisions, if needed. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	AB 617 CERP
431.3#	Sulfur Content of Fossil Fuels	AB 617
101.0	Proposed Amended Rule 431.3 will assess exemptions, including	BARCT /
	RECLAIM, and update other provisions, if needed.	AB 617 CERP
	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
444	Open Burning	Other
	Amendments may be needed to clarify existing provisions. TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
445*	Wood Burning Devices	AQMP
	Proposed Amended Rule 445 will address additional U.S. EPA	
	requirements for Best Available Control Measures, including	
	lowering the curtailment threshold. TBD; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024	Title and Description	Type of Rulemaking	
461	Gasoline Transfer and Dispensing	Other	
	Amendments to Rule 461 may be needed to address potential		
	regulatory gaps.		
462	TBD; CEQA and Socio: Barbara Radlein 909.396.2716 Organic Liquid Loading	Other	
402	Proposed Amended Rule 462 will incorporate the use of advanced	Other	
	techniques to detect fugitive emissions and Facility Vapor Leak.		
	Other amendments may be needed to streamline implementation		
	and add clarity.		
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716		
468#	Sulfur Recovery Units	AB 617	
	Proposed Amended Rule 468 will update SOx emission limits to	BARCT	
	reflect Best Available Retrofit Control Technology, if needed,		
	remove exemptions for RECLAIM facilities, and update		
	monitoring, reporting, and recordkeeping requirements. TBD; CEQA and Socio: Barbara Radlein 909.396.2716		
469#	Sulfuric Acid Units	AB 617	
	Proposed Amended Rule 469 will update SOx emission limits to	BARCT	
	reflect Best Available Retrofit Control Technology, if needed,		
	remove exemptions for RECLAIM facilities, and update		
	monitoring, reporting, and recordkeeping requirements. TBD; CEQA and Socio: Barbara Radlein 909.396.2716		
1101#	Secondary Lead Smelters/Sulfur Oxides	AB 617	
	Proposed Amended Rule 1101 will update SOx emission limits to	BARCT	
	reflect Best Available Retrofit Control Technology, if needed,		
	remove exemptions for RECLAIM facilities, and update		
	monitoring, reporting, and recordkeeping requirements.		
1102	TBD; CEQA and Socio: Barbara Radlein 909.396.2716 Dry Cleaners Using Solvent Other Than Perchloroethylene	AB 617 CERP	
1102	Proposed amendments may be needed to address certain exempt	AD 017 CERF	
	compounds, VOC limits for certain applications, and other		
	amendments to improve clarity.		
	Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716		
1105#	Fluid Catalytic Cracking Units SOx	AB 617	
	Proposed Amended Rule 1105 will update SOx emission limits to	BARCT /	
	reflect Best Available Retrofit Control Technology, if needed,	AB 617 CERP	
	remove exemptions for RECLAIM facilities, and update		
	monitoring, reporting, and recordkeeping requirements. TBD; CEQA and Socio: Barbara Radlein 909.396.2716		

\* Potentially significant hearing

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#### Type of 2024 **Title and Description** Rulemaking 1107 **Coating of Metal Parts and Products** Toxics / Proposed amendments may be needed to address certain exempt Other compounds, VOC limits for certain applications, and other amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716 Toxics / 1108 Cutback Asphalt Proposed amendments may be needed to address certain exempt Other compounds, VOC limits for certain applications, and other amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716 1108.1 Toxics/ **Emulsified Asphalt** Proposed amendments may be needed to address certain exempt Other compounds, VOC limits for certain applications, and other amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716 1110.2\*+# **Emissions from Gaseous- and Liquid-Fueled Engines** AOMP / Proposed amendments will address use of emergency standby AB 617 engines, incorporate possible comments by U.S. EPA for approval BARCT into the SIP, and address monitoring provisions for new engines. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716 1110.4 Emissions from Emergency Generators Other / Proposed Rule 1110.4 will establish and revise rule provisions to AQMP reduce NOx, CO, and PM emissions from emergency generators. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716 1113 **Architectural Coatings** Other Proposed amendments may be needed to address delisted compounds and other amendments to improve clarity and to remove obsolete provisions. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716 1114 **Petroleum Refinery Coking Operations** Other Proposed Amended Rule 1114 will seek to add notification requirements when coke particles, liquid and/or gas is ejected from the coke drum during cutting. TBD; CEQA and Socio: Barbara Radlein 909.396.2716 **Petroleum Coke Calcining Operations – Oxides of Sulfur** 1119# AB 617 Proposed Amended Rule 1119 will update SOx emission limits to BARCT / reflect Best Available Retrofit Control Technology, if needed, AB 617 CERP remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. TBD; CEOA and Socio: Barbara Radlein 909.396.2716

## 2024 To-Be-Determined (Continued)

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024	Title and Description	Type of Rulemaking
1122	Solvent Degreasers	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1124	Aerospace Assembly and Component Manufacturing	Toxics /
	Operations	Other
	Proposed amendments may be needed to address certain exempt	
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity.	
	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1125	Metal Container, Closure, and Coil Coating Operations	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity.	
1126	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	Toxics /
1120	Magnet Wire Coating Operations	
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1128	Paper, Fabric, and Film Coating Operations	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity.	
	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1130	Graphic Arts	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1130.1	Screen Printing Operations	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024	Title and Description	Type of Rulemaking
1133.3	Emission Reductions from Greenwaste Composting Operations	AQMP
	Proposed Amended Rule 1133.3 will seek additional VOCs and	
	ammonia emission reductions from greenwaste and foodwaste	
	composting. Proposed amendments will implement BCM-10 in the	
	2016 AQMP. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1136	Wood Products Coatings	Toxics /
1100	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	0 1101
	amendments to improve clarity.	
	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1138+	Control of Emissions from Restaurant Operations	AQMP
	Proposed Amended Rule 1138 will further reduce emissions from	
	underfired charboilers.	
1142	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716 Marine Tank Vessel Operations	Other
1142	Proposed Amended Rule 1142 will address VOC and hydrogen	Other
	sulfide emissions from marine tank vessel operations, applicability,	
	noticing requirements, and provide clarifications.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	
1143	Consumer Paint Thinners and Multi-Purpose Solvents	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity.	
1144	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716 Metalworking Fluids and Direct-Contact Lubricants	Toxics /
1144	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	Other
	amendments to improve clarity.	
	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1145	Plastic, Rubber, Leather, and Glass Coatings	Toxics /
	Proposed amendments may be needed to address certain exempt	Other
	compounds, VOC limits for certain applications, and other	
	amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

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2024	Title and Description	Type of Rulemaking
1146	Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters	Other
	Proposed amendments to Rule 1146 may be needed to incorporate comments from U.S. EPA. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i>	
1146.1#	Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters Proposed amendments to Rule 1146.1 may be needed to clarify provisions for industry-specific categories and to incorporate comments from U.S. EPA. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	Other
1162	Polyester Resin Operations Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	Toxics / Other
1166	Volatile Organic Compound Emissions from Decontamination of Soil Proposed Amended Rule 1166 will update requirements, specifically concerning notifications and usage of mitigation plans (site specific versus various locations). Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	Other
1171	Solvent Cleaning Operations Proposed Amendments to Rule 1171 may be needed to address certain exempt chemicals and compliance issues. <i>Michael Morris</i> 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	Toxics / Other
1174	Control of Volatile Organic Compound Emissions from the Ignition of Barbecue Charcoal Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i>	AQMP / Other
1176	<b>VOC Emissions from Wastewater Systems</b> Proposed Amended Rule 1176 will clarify the applicability of the rule to include bulk terminals under definition of "Industrial Facilities," and streamline and clarify provisions. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i>	Other / AB 617 CERP

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024	Title and Description	Type of Rulemaking
1186.1, 1191,	Fleet Rules	AQMP /
1192, 1193,	Proposed amendments to Rules 1186.1, 1191, 1192, 1193, 1194,	Other
1194, 1195,	1195, 1196 will seek to align South Coast AQMD fleet rules with	
1196* +	CARB's final Advanced Clean Fleets regulation should it be adopted.	
	Vicki White 909.396.3436; CEQA and Socio: Barbara Radlein 909.396.2716	
1403*	Asbestos Emissions from Demolition/Renovation Activities	Toxics
	Proposed Amended Rule 1403 will enhance implementation,	
	improve rule enforceability, update provisions, notifications,	
	exemptions, and align provisions with the applicable U.S. EPA	
	National Emission Standard for Hazardous Air Pollutants	
	(NESHAP) and other state and local requirements as necessary. Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	
1404	Hexavalent Chromium Emissions from Cooling Towers	Toxics /
	Amendments may be needed to provide additional clarifications	AQMP
	regarding use of process water that is associated with sources that	
	have the potential to contain chromium in cooling towers and	
	address VOC emissions.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	·
1411	<b>Recovery or Recycling of Refrigerants from Motor Vehicle Air</b>	Toxics
	Conditioners	
	Proposed Amended Rule 1411 seeks amendments to coincide with	
	Section 609 of the Clean Air Act.	
1415	TBD; CEQA and Socio: Barbara Radlein 909.396.2716           Reduction of Refrigerant Emissions from Stationary Air	Other
1415.1	Conditioning Systems, and Reduction of Refrigerant Emissions	Other
1413.1	from Stationary Refrigeration Systems	
	Proposed Amended Rules 1415 and 1415.1 will align requirements	
	with the proposed CARB Refrigerant Management Program and	
	U.S. EPA's Significant New Alternatives Policy Rule provisions	
	relative to prohibitions on specific hydrofluorocarbons.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

- + Reduce criteria air contaminants and assist toward attainment of ambient air quality standards
- <sup>#</sup> Part of the transition of RECLAIM to a command-and-control regulatory structure

2024	Title and Description	Type of Rulemaking
1420	Emissions Standard for Lead	Toxics
	Proposed Amended Rule 1420 will update requirements to address	
	arsenic emissions to close a regulatory gap between Rule 1420 and	
	Rule 1407 - Control of Emissions of Arsenic, Cadmium, and Nickel	
	from Non-Ferrous Metal Melting Operations. Other provisions may	
	be needed to address storage and handling requirements, and revise	
	closure requirements.	
1420.1	Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	Tarias
1420.1	Emission Standards for Lead and Other Toxic Air	Toxics
	Contaminants from Large Lead-Acid Battery Recycling	
	Facilities	
	Proposed Amendments are needed to update applicable test methods	
	and provide clarifications regarding submittal of a source-test	
	protocol. Additional amendments may be needed to address	
	monitoring and post closure requirements. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1420.2	Emission Standards for Lead from Metal Melting Facilities	Toxics
	Proposed Amended Rule 1420.2 will update requirements to address	
	arsenic emissions to close a regulatory gap between Rule 1420 and	
	Rule 1407 - Control of Emissions of Arsenic, Cadmium, and Nickel	
	from Non-Ferrous Metal Melting Operations. Additional	
	amendments may be needed to address monitoring and post closure	
	requirements.	
	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	
1420.3	Emissions Standards for Lead from Firing Ranges	Toxics /
	Proposed Rule 1420.3 will establish requirements to address lead	Other
	emissions from firing ranges.	
1426.1	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716 Hexavalent Chromium Emissions from Metal Finishing	Toxics
1720.1	Operations	IUAIUS
	Proposed Rule 1426.1 will reduce hexavalent chromium emissions	
	from heated chromium tanks used at facilities with metal finishing	
	operations that are not subject to Rule 1469.	
	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024		Type of
2024	Title and Description	Rulemaking
1435*	Control of Toxic Air Contaminant Emissions from Metal	AQMP /
	Heating Operations	AB 617 CERP
	Proposed Rule 1435 will establish requirements to reduce point	
	source and fugitive toxic air contaminants including hexavalent	
	chromium emissions from heat treating processes. Proposed Rule	
	1435 will also include monitoring, reporting, and recordkeeping	
	requirements.	
1450*	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	Toxics
1430*	Control of Methylene Chloride Emissions	TOXICS
	Proposed Rule 1450 will reduce methylene chloride emissions from	
	furniture stripping and establish monitoring, reporting, and	
	recordkeeping requirements. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1455	Control of Hexavalent Chromium Emissions from Torch	Toxics /
	Cutting and Welding	AB 617 CERP
	Proposed Rule 1455 will establish requirements to reduce	
	hexavalent chromium emissions from torch cutting and welding of	
	chromium alloys.	
	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	
1466	Control of Particulate Emissions from Soils with Toxic Air	Toxics
	Contaminants	
	Amendments may be needed for residential cleanup projects. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1466.1	Control of Particulate Emissions from Demolition of Buildings	Toxics
1700.1	Proposed Rule 1466.1 will establish requirements to minimize PM	IOAICS
	emissions during the demolition of buildings that housed equipment	
	and processes with metal toxic air contaminants and pollution	
	control equipment.	
	Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

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2024	Title and Description	Type of Rulemaking
1469	Hexavalent Chromium Emissions from Chromium	Toxics
	Electroplating and Chromic Acid Anodizing Operations	
	Amendments to Rule 1469 may be needed to address potential	
	changes with the CARB's Hexavalent Chromium Airborne Toxic	
	Control Measure for Chrome Plating and Chromic Acid Anodizing	
	Operations.	
	Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716	
1470	<b>Requirements for Stationary Diesel-Fueled Internal Combustion</b>	AQMP /
	and Other Compression Ignition Engines	Toxics
	Proposed Amended Rule 1470 seeks to reduce NOx emissions from	
	stationary internal combustion engines (ICEs) by replacing older	
	ICEs with alternative cleaner technology.	
1 470 1	Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1470.1	Emissions from Emergency Standby Diesel-Fueled Engines	AQMP /
	Proposed Rule 1470.1 seeks to reduce NOx emissions from	Toxics
	emergency standby internal combustion engines (ICEs) by replacing	
	older ICEs and requiring the use of commercially available lower	
	emission fuels, such as renewable diesel.	
1472	Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716 Requirements for Facilities with Multiple Stationary Emergency	Toxics
1472	Standby Diesel-Fueled Internal Combustion Engines	TOAICS
	Proposed Amended Rule 1472 will remove provisions that are no	
	longer applicable, update and streamline provisions to reflect the latest OEHHA Health Risk Assessment Guidelines and assess the	
	need for Compliance Plans. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
1480.1	Ambient Monitoring and Sampling of Gaseous Toxic Air	Toxics
	Contaminants	
	Proposed Rule 1480.1 will establish requirements to conduct	
	monitoring and sampling for those facilities identified as significant	
	high-risk level.	
	Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716	
1901	General Conformity	AQMP
	Proposed Amended Rule 1901 will establish a new General	
	Conformity determination process for applicable projects receiving	
	federal funding or approval.	
	TBD; CEQA and Socio: Barbara Radlein 909.396.2716	

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2024	Title and Description	Type of Rulemaking
Regulation XX	<b>RECLAIM - Requirements for Oxides of Sulfur (SOx)</b>	RECLAIM /
	Emissions	Other
	Amendments to Regulation XX rules to address SOx requirements at	
	RECLAIM facilities if there is consideration to transition SOx	
	RECLAIM to command-and-control regulatory structure. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
Regulation	Facility-Based Mobile Sources	AQMP /
$XXIII^{*+}$	Proposed rules within Regulation XXIII would reduce emissions	AB 617 CERP
	from indirect sources and the mobile sources attracted to these	
	facilities.	
	Elaine Shen 909.396.2715; CEQA and Socio: Barbara Radlein 909.396.2716	
-		Other / AQMP/
	of state and federal laws; implement OEHHA's latest risk	Toxics /
	assessment guidance; incorporate changes from OEHHA to new or	AB 617
	revised toxic air contaminants or their risk values; address variance	BARCT /
XXX and	issues, emission limits, technology-forcing emission limits, and	AB 617 CERP
XXXV	conflicts with other agency requirements; abate substantial	
	endangerment to public health; apply additional reductions to meet	
	SIP short-term measure commitments; address issues raised by U.S.	
	EPA or CARB for the SIP or for a rule that was submitted into the	
	SIP; and address compliance issues raised by the Hearing Board. In	
	addition, administrative changes could be necessary for Hearing	
	Board procedures, filings, petitions, noticing, etc. Amendments to	
	existing rules may be needed to address use of materials that contain	
	chemicals of concern. The associated rule development or	
	amendments include, but are not limited to, South Coast AQMD	
	existing, or new rules to implement measures in the 2012, 2016 or	
	2022 AQMP. This includes measures in the 2016 AQMP to reduce	
	toxic air contaminants or reduce exposure to air toxics from	
	stationary, mobile, and area sources. Rule adoption or amendments	
	may include updates to provide consistency with CARB Statewide	
	Air Toxic Control Measures, U.S. EPA's National Emission	
	Standards for Hazardous Air Pollutants, or to address the lead	
	National Ambient Air Quality Standard. Rule adoption or	
	amendments may be needed to implement AB 617 including but not	
	limited to BARCT rules, Community Emission Reduction Plans	
	prepared pursuant to AB 617, or new or amended rules to abate a	
	public health issue identified through emissions testing or ambient	
	monitoring.	

\* Potentially significant hearing

<sup>+</sup> Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

<sup>&</sup>lt;sup>#</sup> Part of the transition of RECLAIM to a command-and-control regulatory structure

Month		Type of
1 <sup>st</sup> Quarter	Title and Description	Rulemaking
2304*+	Commercial Marine Ports – Container Terminals	AQMP /
316.1	Fees for Rule 2304	AB 617 CERP
	Proposed Rule 2304 will establish requirements to reduce emissions	
	from container terminals located at commercial marine ports and	
	the mobile sources attracted to these facilities. Proposed Rule 316.1	
	will establish fees to recover the South Coast AQMD's anticipated	
	cost of implementing Proposed Rule 2304. Elaine Shen 909 396. 2715; CEQA and Socio: Barbara Radlein 909.396.2716	
	Etaine Shen 909 390. 2713; CEQA ana Socio: Barbara Raalein 909.390.2710	Type of
2 <sup>nd</sup> Quarter	Title and Description	Rulemaking
1401	New Source Review of Toxic Air Contaminants	Toxics /
	Proposed Amended Rule 1401 will amend Table 1 to include new	Other
	toxic air contaminants identified by California Office of	
	Environmental Health Hazard Assessment (OEHHA).	
	Kalam Cheung 909.396. 3281; CEQA and Socio: Barbara Radlein 909.396.2716	Type of
3 <sup>rd</sup> Quarter	Title and Description	Type of Rulemaking
Regulation	New Source Review	AQMP
$XIII^{*\#}$	Proposed Amended Regulation XIII will revise New Source Review	
	provisions to address facilities that are transitioning from RECLAIM	
	to a command-and-control regulatory structure and to address	
	comments from U.S. EPA. Additional rules under Regulation XIII	
	may be needed to address offsets and other provisions under	
	Regulation XIII. Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	
Regulation	RECLAIM	AQMP
XX <sup>*#</sup>	Proposed Amended Regulation XX will address the transition of	
	NOx RECLAIM facilities to a command-and-control regulatory	
	structure.	
	Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716	

## **TENTATIVE 2025 CALENDAR**

\* Potentially significant hearing

+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 14

PROPOSAL: Report of RFQs/RFPs Scheduled for Release in October

SYNOPSIS: This report summarizes the RFQs/RFPs for budgeted services over \$100,000 scheduled to be released for advertisement for the month of October.

COMMITTEE: Administrative, September 13, 2024, Reviewed

## **RECOMMENDED ACTION:**

Approve the release of RFQs/RFPs for the month of October.

Wayne Nastri Executive Officer

SJ:gp

## Background

In January 2020, the Board approved a revised Procurement Policy and Procedure. Under the revised policy, RFQs/RFPs for budgeted items over \$100,000 that follow the Procurement Policy and Procedure would no longer be required to obtain individual Board approval. However, a monthly report of all RFQs/RFPs over \$100,000 is included as part of the Board agenda package and the Board may, if desired, take individual action on any item. The attached report provides the title and synopsis of the RFQ/RFP, the budgeted funds available, and the name of the Deputy Executive Officer/Assistant Deputy Executive Officer responsible for that item. Further detail including closing dates, contact information, and detailed proposal criteria will be available online at <u>http://www.aqmd.gov/grants-bids</u> following Board approval on October 4, 2024.

## Outreach

In accordance with South Coast AQMD's Procurement Policy and Procedure, a public notice advertising the RFQs/RFPs and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may be notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the RFQs/RFPs will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations and placed on South Coast AQMD's website (http://www.aqmd.gov), where it can be viewed by making the selection "Grants & Bids."

## **Proposal Evaluation**

Proposals received will be evaluated by applicable diverse panels of technically qualified individuals familiar with the subject matter of the project or equipment and may include outside public sector or academic community expertise.

## Attachment

Report of RFQs/RFPs Scheduled for Release in October 2024

## October 4, 2024 Board Meeting Report on RFQs/RFPs Scheduled for Release on October 4, 2024

# (For detailed information visit South Coast AQMD's website at <u>http://www.aqmd.gov/nav/grants-bids</u> following Board approval on October 4, 2024)

#### SPECIAL TECHNICAL EXPERTISE

RFP #P2025-04Issue RFP to Audit AB 2766 Fee Revenue<br/>Recipients for Fiscal Years 2021-22 and 2022-<br/>23.Jain/2804

AB 2766 requires any agency that received fee revenues subvened to the South Coast AQMD from the Department of Motor Vehicles to be audited once every two years. This action is to issue an RFP for an independent Certified Public Accountant to conduct the audits for Fiscal Years 2021-22 and 2022-23. Funds for this expense are included in the Fiscal Year 2024-25 Budget.

RFP #P2025-03 Issue RFP for Purchase of Telecommunication Moskowitz/3329 Services

On January 7, 2022, the Board approved contracts with various vendors to provide telecommunication services to the South Coast AOMD in the most cost-effective manner and, if possible, with qualifying vendors capable of providing telecommunication services through a competitive bid process that will be used to make buying decisions that are in the best interest of the South Coast AOMD. These telecommunications services include local, long distance, and toll-free; private internet protocol (PIP)/frame relay network; dedicated T1 lines; MPLS two bundled IP T1's 3MB; Ethernet Private Line (ELINE) service; Ethernet Virtual Private Line (EVPL) service; internet access (with a redundant connection); phone system maintenance; and wireless voice and data. The contracts will expire on February 23, 2025. This action is to issue an RFP to select vendors capable of providing these services for a three-year period. Funds for this expense are included in the FY 2024-25 Budget (\$975,000) and will be included in subsequent fiscal year budget requests, with the total value of the contract at \$2,925,000.

		1 Back to Agenda
BOARD MEETIN	NG DATE: October 4, 2024	AGENDA NO. 15
REPORT:	Status Report on Major Ongoing a Information Management	nd Upcoming Projects for
SYNOPSIS:	Information Management is respon- management services in support of operations. This action is to provid major automation contracts and pla	Call South Coast AQMDle the monthly status report o
COMMITTEE:	Administrative, September 13, 202	24, Reviewed
RECOMMENDE Receive and file.	D ACTION:	

	Wayne Nastri
	Executive Officer
DMM.VC.DD.III.do	

## Background

Information Management (IM) provides a wide range of information systems and services in support of all South Coast AQMD operations. IM's primary goal is to provide automated tools and systems to implement rules and regulations, and to improve internal efficiencies. The annual Budget and Board-approved amendments to the Budget specify projects planned during the fiscal year to develop, acquire, enhance, or maintain mission-critical information systems.

## **Summary of Report**

The attached report identifies the major projects/contracts or purchases that are ongoing or expected to be initiated within the next six months. Information provided for each project includes a brief project description and the schedule associated with known major milestones (issue RFP/RFQ, execute contract, etc.).

## Attachment

Information Management Status Report on Major Ongoing and Upcoming Projects During the Next Six Months

## ATTACHMENT October 4, 2024 Board Meeting Status Report on Ongoing and Upcoming Projects for Information Management

Warehouse Indirect Source Rule Online Reporting Portal Phase 4	
Brief description:	Development of online reporting portal for Rule 2305 – Warehouse Indirect Source
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	90%
LAST 30 days	Additional System Enhancements
NEXT 30 days	User Acceptance Testing
Original estimated go-live date	8/9/24
Current estimated go-live date	10/18/2024
Go-live date	N/A
Notes	Two new enhancements were requested by the user.

Agenda Tracking System	
Brief description	Develop new Agenda Tracking System for submittal, review, and approval of Governing Board meeting agenda items
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	90%
LAST 30 days	User Acceptance Testing and Training
NEXT 30 days	User Acceptance Testing
Original estimated go-live date	11/15/24
Current estimated go-live date	11/15/24
Go-live date	N/A
Notes	Project is on schedule. IM development complete.

Online Application Filing	
Brief description	Enhanced Web application to automate filing of permit applications, Rule 222 equipment and registration for IC engines; implement electronic permit folder and workflow for staff
Estimated project cost	\$525,000
Overall project status	In Progress
Percentage complete	90%
LAST 30 days	<ul> <li>User Acceptance Testing of Phase 1 of the project (first ten 400-E-XX forms)</li> <li>User Acceptance Testing of next set of Rule 222 forms</li> </ul>
NEXT 30 days	<ul> <li>User Acceptance Testing of Phase 1 of the project (first ten 400-E-XX forms</li> <li>User Acceptance Testing of next set of Rule 222 forms</li> </ul>
Original estimated go-live date	1/17/25
Current estimated go-live date	1/17/25
Go-live date	N/A
Notes	IM Development Complete.

Permit Workflow Automation – Phase 1	
Brief description	Automate application acceptance and engineering evaluation processes into paperless workflows
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	50%
LAST 30 days	System Development in Progress
NEXT 30 days	System Development in Progress
Original estimated go-live date	3/14/25
Current estimated go-live date	3/14/25
Go-live date	N/A
Notes	Project is on schedule.

Website Upgrade	
Brief description	Upgrade the Website Content Management System to latest version
Estimated project cost	\$100,000
Overall project status	In Progress
Percentage complete	95%
LAST 30 days	User Acceptance Testing and Training
NEXT 30 days	User Acceptance Testing and Training
Original estimated go-live date	10/11/24
Current estimated go-live date	12/10/24
Go-live date	N/A
Notes	The project has been delayed due to software issues. A vendor fix is required.

Compliance System	
Brief description	Develop new Compliance System to help streamline the compliance business process. The new system will provide full integration of incident management, inspection process, field operations and operations dashboard
Estimated project cost	\$450,000
Overall project status	In Progress
Percentage complete	60%
LAST 30 days	System Development in progress
NEXT 30 days	System Development in progress
Original estimated go-live date	2/28/25
Current estimated go-live date	2/28/25
Go-live date	N/A
Notes	Project is on schedule.

Source Test Tracking System (STTS)	
Brief description	Online STTS will keep track of timelines and quantify the number of test protocols and reports received. The system will provide an external online portal to submit source testing protocols and reports, track the review process, and provide integration to all other business units. It will also provide an external dashboard to review the status of a submittal.
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	95%
LAST 30 days	Working on going live
NEXT 30 days	Working on going live
Original estimated go-live date	9/20/24
Current estimated go-live date	9/20/24
Go-live date	N/A
Notes	IM Development Complete. On-Boarding Procedures Approved.

IT Service Management	
Brief description	IT Service Management will help improve user experience and gain more productivity from IT infrastructure. IT Service Management will align IT service with the organizational goals and streamline delivery of services
Estimated project cost	\$90,000
Overall project status	In Progress
Percentage complete	80%
LAST 30 days	Working on going live
NEXT 30 days	Post-production support
Original estimated go-live date	10/11/24
Current estimated go-live date	10/11/24
Go-live date	N/A
Notes	Project is on schedule.

Projects that have been completed within the last 12 months are shown below		
COMPLETED PROJECTS		
PROJECT	DATE COMPLETED	
Rule 1180 System Enhancements	August 16, 2024	
Rule 1415 System Enhancements	August 9, 2024	
AQ-SPEC Cloud Platform Phase 2	July 10, 2024	
AB2766 Version 2 Enhancements	May 9, 2024	
PeopleSoft HCM Labor Agreement Implementation	April 30, 2024	
PeopleSoft Electronic Requisition	April 30, 2024	
Volkswagen Environmental Mitigation Trust Program GMS Enhancement	March 5, 2024	
Email Gateway Replacement	March 1, 2024	
Prequalify Vendor List for PCs, Network Hardware, etc.	February 2, 2024	
WAIRE Program Online Portal (ISR) - Enhancement for Reporting Year 2024	December 28, 2023	
Annual Emissions Reporting 2024	December 28, 2023	



BOARD MEETING DATE: October 4, 2024

AGENDA NO. 16

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee held a hybrid meeting on Friday, September 13, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Vanessa Delgado, Chair Administrative Committee

SN:cb

## **Committee Members**

Present: Chair Vanessa Delgado, Committee Chair Vice Chair Michael Cacciotti Supervisor V. Manuel Perez Absent: Board Member Gideon Kracov

## **Call to Order**

Chair Delgado called the meeting to order at 10:00 a.m.

For additional details of the Administrative Committee Meeting, please refer to the Webcast.

## **DISCUSSION ITEMS:**

- 1. **Board Members' Concerns:** Supervisor Perez thanked staff for meeting in Coachella Valley regarding dust issues and community concerns. He expressed gratitude that staff provided ideas for moving forward and appreciated that representatives from CARB and U.S. EPA were in attendance. For additional information, please refer to the <u>Webcast at 5:07</u>.
- 2. Chair's Report of Approved Travel: No Chair approved travel.

- 3. **Report of Approved Out-of-Country Travel:** Out-of-country travel was reported for Executive Officer Wayne Nastri to Japan for the Global Maritime Forum Annual Summit occurring October 13 through 17, 2024. For additional information, please refer to the <u>Webcast at 7:53</u>.
- 4. **Review October 4, 2024 Governing Board Agenda:** Mr. Wayne Nastri noted that November is going to be a very busy month with three set hearings for Rules 1173, 1445 and 1151, as well as a Public Hearing for 1135 and the Coachella Valley attainment plan for the 2008 8-hour ozone standard. For additional information, please refer to the <u>Webcast at 8:09</u>.
- 5. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** There were none for approval.
- 6. **Update on South Coast AQMD Diversity, Equity and Inclusion Efforts:** Anissa Heard-Johnson, Diversity, Equity & Inclusion (DEI) Officer/DEI with Community Air Programs, provided an update on agency efforts, seasonal events, cultural displays, Statewide DEI Working Group, and discussed Maria Telkes for Fabulous Female Friday.

Harvey Eder, Public Solar Power Coalition, provided public comment on solar power and history of solar power.

For additional information, please refer to the Webcast at 9:14.

- 7. **Review Recommended Appointment of Orange County Member to South Coast AQMD's Young Leader's Advisory Council (YLAC):** Dr. Heard-Johnson reported that this is a recommendation to appoint Ty Nguyen to YLAC and that he was one of the Governing Board interns this past summer. For additional information, please refer to the <u>Webcast at 17:24</u>.
- 8. **Report of RFQs/RFPs Scheduled for Release in October:** Sujata Jain, Chief Financial Officer, reported on the release of an RFP for independent certified public accountants to conduct the AB 2766 audits and issuance of an RFP for various telecommunication services through a competitive bid process. Funds are available for both of these RFPs. For additional information, please refer to the <u>Webcast at 18:05.</u>
- 9. Status Report on Major Ongoing and Upcoming Projects for Information Management: Ron Moskowitz, Chief Information Officer, reported on the status of various projects. For additional information, please refer to the Webcast at 19:34.

## **ACTION ITEMS:**

10. Authorize Purchase of ESRI Enterprise Agreement: Mr. Moskowitz reported that this item is to obtain approval for the purchase of an ESRI Enterprise agreement for a period of three years at the amount not to exceed \$185,000 per year.

For additional information, please refer to the Webcast at 21:12.

Moved by Cacciotti; seconded by Perez, unanimously approved.

Ayes:	Delgado, Cacciotti, Perez
Noes:	None
Absent:	Kracov

11. Recognize Revenue, Transfer and Appropriate Funds, Issue Purchase Orders, and Add Positions for Community Air Monitoring Near Refineries and Related Facilities: Jason Low, Deputy Executive Officer/Monitoring & Analysis, reported that these actions are to support the implementation of the Rules 1180 and 1180.1, which requires oil refineries to fund the installation and operation of fenceline and community air monitoring stations. The actions are to recognize approximately \$7.5 million into the Rule 1180 Special Revenue Fund and transfer and appropriate \$1.5 million into the Monitoring & Analysis budget to issue purchase orders for air monitoring shelters and vehicles and add new positions for the planning and implementation of enhanced additional community air monitoring.

Mr. Eder commented on how this monitoring relates to legal evidence for litigation and the quality of the monitoring. Dr. Low indicated that the monitoring systems are designed to provide real-time information to the public as well as provide notifications.

For additional information, please refer to the Webcast at 22:12.

Moved by Cacciotti; seconded by Perez, unanimously approved.

Ayes:	Delgado, Cacciotti, Perez
Noes:	None
Absent:	Kracov

12. Recognize Revenue, Appropriate Funds, Issue Solicitation and Purchase Order for Air Monitoring Equipment Shelter: Dr. Low reported that this item is to recognize the remaining balance of \$100,000 from a Federal Grant award under U.S. EPA and appropriate those funds to the Monitoring & Analysis budget and issue a solicitation and purchase order for an air monitoring shelter. For additional information, please refer to the <u>Webcast at 25:09</u>. Moved by Cacciotti; seconded by Perez, unanimously approved.

Ayes:Delgado, Cacciotti, PerezNoes:NoneAbsent:Kracov

13. **Issue Solicitations and Purchase Orders for Air Monitoring and Laboratory Equipment:** Dr. Low reported that this action is to issue solicitations and purchase orders for air monitoring laboratory equipment in the estimated amount of \$330,000.

Supervisor Perez inquired where we plan to put this equipment. Dr. Low indicated that it goes to our 36 air monitoring stations located within the District. Supervisor Perez inquired about the relocation of some of the stations in the Coachella Valley. Mr. Nastri suggested a follow-up conversation with Supervisor Perez. For additional information, please refer to the <u>Webcast at 25:58</u>.

Moved by Cacciotti; seconded by Perez, unanimously approved.

Ayes:Delgado, Cacciotti, PerezNoes:NoneAbsent:Kracov

14. Appropriate Funds and Amend Contract to Implement Air Quality Community Training and Provide Air Filtration Systems in Eastern Coachella Valley for U.S. EPA State Environmental Justice Cooperative Agreement Program: Dr. Heard-Johnson reported that this action is to appropriate the remaining \$45,000 of the first phase of a grant from the State Environmental Justice Cooperative Agreement Program to continue implementing an Air Quality Academy and provide air filtration systems community training to operate the air filtration systems.

Perez expressed the importance of becoming partners in order to move forward. For additional information, please refer to the <u>Webcast at 27:27</u>.

Moved by Perez; seconded by Cacciotti, unanimously approved.

Ayes:	Delgado, Cacciotti, Perez
Noes:	None
Absent:	Kracov

### WRITTEN REPORT:

There were no written reports to report.

## **OTHER MATTERS:**

- 15. **Other Business:** Chair Delgado inquired if there will be any meetings in the public this year. Mr. Nastri reported that this will happen again next year. For additional information, please refer to the <u>Webcast at 30:02.</u>
- 16. **Public Comment:** Mr. Eder commented on solar energy. For additional information, please refer to the <u>Webcast at 30:29</u>.
- 17. Next Meeting Date: The next regular Administrative Committee meeting is scheduled for Friday, October 11, 2024 at 10:00 a.m.

### Adjournment

The meeting was adjourned at 10:32 a.m.

Back to Agenda

BOARD MEETING DATE: October 4, 2024

AGENDA NO. 17

REPORT: Investment Oversight Committee

SYNOPSIS: The Investment Oversight Committee held a hybrid meeting on Friday, September 13, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Michael A. Cacciotti, Committee Chair Investment Oversight Committee

SJ:gp

### **Committee Members**

 Present: Vice Chair Michael A. Cacciotti, Committee Chair Supervisor Curt Hagman Board Member Veronica Padilla-Campos Richard Dixon Jill Whynot
 Absent: Mayor José Luis Solache

### Call to Order

Committee Chair Cacciotti called the meeting to order at 8:02 a.m.

For additional details of the Investment Oversight Committee Meeting, please refer to the <u>Webcast</u>.

### **DISCUSSION ITEMS:**

<u>Quarterly Report of Investments</u>: Sujata Jain, Chief Financial Officer presented the quarterly investment report. Committee Chair Cacciotti asked about reinvesting the U.S. Treasury Notes funds that will be maturing November and December 2024. Ms. Jain explained that she reached out to the Los Angeles County Treasurer about reinvesting the funds and will also reach out to staff regarding the restricted funds and the ability to reinvest those funds. For additional information please refer to the <u>Webcast at 3:44</u>.

2. *Financial Market Update:* Richard Babbe, PFM Asset Management, gave the financial market update for the second quarter. Mr. Babbe discussed CPI, inflation trends, demands for goods and services, GDP, unemployment, and consumer spending. Mr. Babbe explained that the Federal Reserve is expected to cut interest rates at the upcoming open market committee and will also update their economic projections for 2024. For additional information please refer to the <u>Webcast at 6:11</u>.

Committee Chair Cacciotti asked about changes to interest rates, mortgage rates, and investment rates for South Coast AQMD. Mr. Babbe explained that interest rates have come down, and discussed investment rates for South Coast AQMD. For additional information please refer to the <u>Webcast at 24:39</u>.

### **OTHER MATTERS:**

3. Other Business

There was no other business to report.

4. Public Comment Period

There were no public comments to report.

## 5. Next Meeting Date

The next regular Investment Oversight Committee meeting is scheduled for Friday, December 13, 2024.

## Adjournment

The meeting adjourned at 8:30 a.m.

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 18

REPORT: Legislative Committee

SYNOPSIS:The Legislative Committee held a hybrid meeting on Friday,<br/>September 13, 2024. The following is a summary of the meeting.

Receive and file this report and approve agenda items as specified in this letter.

Michael A. Cacciotti, Committee Chair Legislative Committee

DJA:LTO:PFC:DPG:mc

### **Committee Members**

Present:	Councilmember Michael A. Cacciotti, Committee Chair
	Mayor Patricia Lock Dawson
	Supervisor V. Manuel Perez
	Councilmember Nithya Raman
	Mayor José Luis Solache
Absent:	Supervisor Curt Hagman

### **Call to Order**

Chair Michael Cacciotti called the meeting to order at 9:00 a.m.

## **ACTION/DISCUSSION ITEMS:**

1. Update on 2024 South Coast AQMD-Sponsored State Bills Derrick Alatorre, Deputy Executive Officer/Legislative, Public Affairs and Media,

provided an update on the 2024 South Coast AQMD-sponsored state bills.

• <u>AB 2522 (W. Carrillo)</u> would double compensation limits for local air district's Board Members and authorize annual consumer price index increases going forward. AB 2522 was passed by the Legislature and presented to the Governor for consideration.

- <u>AB 2958 (Calderon)</u> would provide CARB Board Members representing local air districts with the same level of compensation as other voting CARB Board Members. The bill died in Senate Appropriations.
- <u>SB 1158 (Archuleta)</u> would update the Carl Moyer Program by extending the liquidation time for Moyer funding from four to six years. The bill was passed by the Legislature and presented to the Governor for consideration.

Committee Chair Cacciotti inquired about the likelihood of AB 2522 and SB 1158 being signed into law by the Governor. Mr. Alatorre responded that the bills are likely to be signed, in part because they do not affect the state budget. He added that although AB 2958 (Calderon) did not pass this year, there may be other opportunities for that bill in the next legislative session. For additional information, please refer to the Webcast beginning at 5:21.

There was no public comment.

## 2. Update on Key Position Bills

Philip Crabbe, Sr. Public Affairs Manager/Legislative, Public Affairs and Media, presented on bills pending the Governor's consideration that could adversely affect South Coast AQMD. Based on the Board approved 2024 State Legislative Guiding Principles, South Coast AQMD will send the Governor letters in opposition on the following bills:

- <u>AB 98 (J. Carrillo</u>) would establish standards for new or expanded warehouses, among other provisions, including the imposition of unfunded mandates such as monitoring on South Coast AQMD beginning January 1, 2026.
- <u>AB 1122 (Bains</u>) would delay compliance with CARB's Commercial Harbor Craft regulation, thereby bypassing the state's regulatory authority. The bill would delay emission reductions in the South Coast Air Basin potentially creating a shortfall in South Coast AQMD's SIP obligations.
- <u>AB 1296 (Grayson</u>) would allow three San Francisco Bay pilot boats to delay compliance with CARB's Commercial Harbor Craft Regulation until the end of their useful life (around 2030 to 2040). This bill sets a bad precedent by encouraging legislation to be used as a means to circumvent state and local air quality regulatory authority.

For additional information, please refer to the Webcast beginning at 9:15.

Harvey Eder, Public Solar Power Coalition, provided public comment regarding the Warehouse Indirect Source Rule.

## **DISCUSSION ITEMS:**

## 3. Update and Discussion on Federal Legislative Issues

South Coast AQMD's federal legislative consultants (Cassidy & Associates, Kadesh & Associates, and Carmen Group) provided written reports on key Washington, D.C. issues.

Jed Dearborn, Cassidy & Associates, reported that Congress is focused on passing a Continuing Resolution to fund the federal government before the end of the fiscal year on September 30. Mr. Dearborn discussed the House and Senate versions of the Continuing Resolution. For additional information, please refer to the Webcast beginning at <u>16:34</u>.

Mark Kadesh, Kadesh & Associates, reported on legislation that Congress could consider in September or during the lame duck session after November elections. For additional information, please refer to the Webcast beginning at <u>17:55</u>.

Gary Hoitsma, Carmen Group, provided an update on federal grants including Clean Ports, Clean Heavy-Duty Vehicles, Environmental and Climate Justice Grants and Airport Improvement Program. For additional information, please refer to the Webcast beginning at <u>19:56</u>.

Supervisor Perez asked for information regarding the Environmental and Climate Justice Grants Program. Mr. Hoitsma responded that more information on the program will be provided.

Mayor Lock-Dawson asked if there will be additional funding for the Airport Improvement Program and what types of projects are funded. Mr. Hoitsma responded that there will be future grant opportunities and that the programs funds various improvements to airports including clean technologies and infrastructure.

Councilmember Raman asked for information on the Clean School Bus program and asked why Los Angeles did not receive funding in the last round of awards. Lisa Tanaka, Assistant Deputy Executive Officer/Legislative, Public Affairs and Media, added that the Los Angeles Unified School District and other school districts in our region received zero-emission school bus funding in previous rounds of the grants. For additional information, please refer to the Webcast beginning at <u>16:36</u>.

There was no public comment.

### 4. Update and Discussion on State Legislative Issues

South Coast AQMD's state legislative consultants (California Advisors, LLC, Joe A. Gonsalves & Son, and Resolute) provided written reports on key issues in Sacramento.

Ross Buckley, California Advisors, provided a brief overview regarding the end of the legislative session. Since September 1, the Governor has signed twenty bills and vetoed two bills. For additional information, please refer to the Webcast beginning at 28:46.

Paul Gonsalves, Joe A. Gonsalves & Son, reported on AB 98 (J. Carrillo), a gut-andamend bill that passed the Legislature at the end of session. Mr. Gonsalves also provided a summary of the upcoming legislative calendar. For additional information, please refer to the Webcast beginning at <u>31:07</u>.

David Quintana, Resolute, reported that the Governor has called for a special legislative session to address gas prices. Two bills have been introduced, ABX2 1 which would create an expert advisory committee for the California Energy Commission to set requirements for refineries and ABX2 2 which would suspend the gas tax. For additional information, please refer to the Webcast beginning at <u>34:41</u>.

Committee Chair Cacciotti inquired about the motivation behind AB 98 (J. Carrillo). Mr. Gonsalves responded that the warehouse issue has been an issue of concern for Assemblymember Eloise Reyes, who represents the San Bernardino area and Assemblymember Juan Carrillo, who represents the Palmdale area.

Councilmember Raman and Mayor Solache inquired about the late session changes in content to AB 98 and asked how the bill would impact South Coast AQMD. Mr. Crabbe responded that the bill was a gut-and-amend, which deleted the previous contents of the bill. The bill would create unfunded mandates that are duplicative of South Coast AQMD's existing air monitoring efforts conducted through the AB 617 program and MATES. The bill would also create a redundant public process for the allocation of penalty funding from Rule 2305: Warehouse Actions and Investments to Reduce Emissions program, setting a bad precedent by passing local authority. Overall, the bill would prohibit cities and counties from approving new or expanded logistics uses unless they meet certain standards and would require cities and counties to update their circulation elements to include truck routes.

Mayor Lock Dawson stated that the City of Riverside sent the Governor a letter in opposition to AB 98 because it would issue penalties to local governments for non-compliance. It also would impose different penalties for cities within Riverside and San Bernardino Counties.

Mr. Eder provided public comment related to solar energy.

For additional information, please refer to the Webcast beginning at 36:08.

## **OTHER MATTERS:**

## 5. Other Business

Mayor Lock Dawson asked if staff will be attending the United Nations Climate Change Conference, COP29, in Baku, Azerbaijan. Executive Officer Wayne Nastri responded that staff will not be attending due to difficulties relating to the conference logistics.

## 6. Public Comment Period

There was no public comment.

## 7. Next Meeting Date

The next regular Legislative Committee meeting is scheduled for Friday, October 11, 2024, at 9:00 a.m.

## Adjournment

The meeting was adjourned at 9:46 a.m.

## Attachments

- 1. Attendance Record
- 2. Update on Federal Legislative Issues Written Reports
- 3. Update on State Legislative Issues Written Reports

## **ATTACHMENT 1**

## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT LEGISLATIVE COMMITTEE MEETING ATTENDANCE RECORD - SEPTEMBER 13, 2024

Council Member Michael Cacciotti	. South Coast AQMD Board Member
Mayor Patricia Lock Dawson	-
Supervisor V. Manuel Perez	
Council Member Nithya Raman	
Mayor José Luis Solache	
•	-
Fred Minassian	. Board Consultant (Padilla-Campos)
Marisela Santana	. Board Consultant (Solache)
Mark Taylor	Board Consultant (Rodriguez)
Ben Wong	Board Consultant (Cacciotti)
Ross Buckley	
Paul Gonsalves	
Gary Hoitsma	. Carmen Group, Inc.
Jed Dearborn	•
Mark Kadesh	
David Quintana	. Resolute
Mark Abramowitz	
Alex Davis	
Harvey Eder	
Sam Emmersen	
Bill La Marr	
Cindy Parson	
Bill Quinn	
Peter Okurowski	
Petter Whittingham	. Public Member
Derrick Alatorre	-
Debra Ashby	
Barbara Baird	-
Cathy Bartels	-
Cindy Bustillos	-
Lara Brown	-
Matthew Ceja	-
Maria Corralejo	
Philip Crabbe	
Scott Gallegos	
Denise Gailey	-
De Groeneveld	-
Sheri Hanizavareh	
Anissa Cessa Heard-Johnson	. South Coast AQMD Staff

Brandee Keith	
Angela Kim	South Coast AQMD Staff
Howard Lee	
Alicia Lizarraga	South Coast AQMD Staff
Brisa Lopez	
Ron Moskowitz	
Susan Nakamura	
Wayne Nastri	South Coast AQMD Staff
Robert Paud	
Sarah Rees	
Sandra Robles	
Lisa Tanaka O'Malley	South Coast AQMD Staff
Erika Valle	
Mei Wang	South Coast AQMD Staff
Victor Yip	
*	•

## ATTACHMENT 2A



To: South Coast Air Quality Management District

From: Cassidy & Associates

Date: July 23, 2024

Re: June and July Report

## HOUSE/SENATE

### Congress

The focus in Washington will be on the 2024 presidential race following President Joe Biden's announcement on Sunday that he will no longer be seeking reelection and Vice President Kamala Harris's speedy announcement of her candidacy. Harris has received endorsements from numerous Democrats and filed the Federal Elections Commission (FEC) report for her campaign. Now questions are swirling around who Harris will pick to join her on the ballot as the candidate for Vice President.

Both chambers are back for two weeks before the start of the August recess. Several committees are holding hearings related to the assassination attempt on former President Trump earlier this month. In addition to oversight-related hearings, lawmakers will also move forward with Fiscal Year (FY) 2025 appropriations bills. The House completed subcommittee markups on all FY25 bills, and several bills will be considered by the full House throughout the next two weeks, including the Energy and Water and the Interior and Environment bills. The Senate Appropriations Committee will mark up spending bills for Commerce, Justice, and Science; State and Foreign Operations; Transportation, Housing, and Urban Development; and Interior and Environment.

Senators Manchin (I-WV) and Barrasso (R-WY), the Senate Energy and Natural Resources Chair and Ranking Member, released an energy and mining permitting reform bill that will be

considered in a committee markup at the end of the month. During the June session, the House passed the FY25 National Defense Authorization Act by a vote of 217 to 199. In the Senate, the bill passed the Senate Armed Services Committee and will be considered on the Senate Floor.

House Committee activity this week included an Energy and Commerce Committee hearing on the FY25 budget for the Nuclear Regulatory Commission and another hearing on the FY25 budget for the Federal Energy Regulatory Commission. In Senate Committee activity, the Commerce, Science, and Transportation Committee held a field hearing on the impact of the Bipartisan Infrastructure Law on transportation infrastructure.

### EPA

On July 22, the Environmental Protection Agency (EPA) announced that South Coast Air Quality Management District (SCAQMD) was selected to receive a \$499,997,415 Climate Pollution Reduction Grant. The grant funding will be used to provide incentives for electric charging equipment, increase zero-emission freight vehicles, and replace or convert cargo handling equipment and diesel freight switch locomotives. Sen. Vanessa Delgado, Chair of the Governing Board, expressed her gratitude for the award, saying that it will reduce 12 million metric tons of carbon emissions over the next 25 years and avoid 1,600 tons of smog-forming emissions annually. Read more <u>here</u>.

On July 15, the Environmental Protection Agency (EPA) announced new protections to protect people from exposure to pesticide spray drift. The EPA will assess the amount of pesticide that drifts away from where it is applied earlier in its review process for new active ingredient pesticide registrations and new use decisions. The analysis will occur during initial review, rather than the registration review, which occurs every 15 years after a pesticide is approved. The new process will allow EPA to identify spray drift risks for people living or working nearby and for non-target species. Read more <u>here</u>.

On July 2, the Environmental Protection Agency (EPA) released an updated climate indicators report that shows new data on the impacts of climate change in the United States. This year's report included new indicators on marine heat waves and heat-related workplace deaths. The report indicated that 2023 was the warmest year on record worldwide, and 2014 – 2023 was the warmest decade on record. Heat waves occur more frequently and last longer, and wildfires have increased in acreage. Growing seasons have increased by more than two weeks, as snowpack seasons have decreased by an average of 15 days. Read more here.

On June 21, the Environmental Protection Agency (EPA) announced the availability of \$850 million for projects to help monitor, measure, quantify, and reduce methane emissions from the oil and gas sectors. As the nation's largest industrial source of methane, oil and natural gas facilities play a key role in the Biden Administration's efforts to cut methane pollution through the Methane Emissions Reduction Program. The funding will help small oil and gas operators to reduce methane emissions by incorporating innovative technologies. Read more <u>here</u>.

On June 20, EPA released its 2024-2027 Climate Adaptation Plan that establishes agency priorities to address climate change. The plan's goals include ensuring staff are climate-literate, building facility resilience, developing climate-resilient supply chains, and considering and integrating climate resilience into external funding opportunities, decision making, and rulemaking processes. The plan builds on the 2014 and 2021 Climate Adaptation Plans. Read more <u>here</u>.

On June 5, EPA announced a proposed rule to limit exposure from n-methylpyrrolidone (NMP) under the Toxic Substances Control Act (TSCA). The proposed rule would limit the concentration of NMP in certain products, establish workplace safety restrictions, and ban certain uses of the chemical. The ban includes automotive care products, cleaning and degreasing products, metal products, and furniture care products. NMP is used in the production of electronics, polymers, agricultural chemicals, and petrochemical products and is known to cause serious health effects, including liver, kidney, and immune system damage, as well as miscarriages and reduced fertility. Read more <u>here</u>.

On May 29, EPA announced over \$91 million in rebates for clean school buses in California as part of the 2023 Clean School Bus Program rebate competition. The rebates will support the purchase of 380 clean school buses to replace diesel-fueled buses in 47 school districts across the state. The program, created by the Infrastructure Investment and Jobs Act, will ultimately improve air quality and public health by reducing diesel emissions. Read more <u>here</u>.

On May 28, EPA selected five recipients, including the University of California – Riverside, to receive nearly \$15 million to address hydroflourocarbons (HFC), a highly potent greenhouse gas commonly used in refrigeration and air conditioning. The Biden-Harris Administration aims to achieve an 85% reduction in HFC levels by 2036. HFCs can have a climate impact of hundreds to thousands of times stronger than carbon dioxide. The University of California – Riverside will use the funding to develop scalable catalytic and assisting technologies for efficient HFC destruction. Read more here.

Cassidy and Associates support in June and July:

- Worked with SCAQMD staff to strategize on future DC outreach.
- Continued to monitor and report on activities in Congress and the Administration that impact the District.
- Advised SCAQMD throughout appropriations cycle to identify and pursue funding opportunities.
- Participated in weekly strategy sessions with SCAQMD staff in support of nonattainment and funding issues.

## IMPORTANT LEGISLATIVE DATES

**September 30, 2024:** Reauthorization deadline for the Farm Bill, an omnibus package of legislation that supports US agriculture and food industries; the bill is reauthorized on a five-year cycle. The Congressional Budget Office (CBO) projects a combined budget of \$648 billion for the 2023 Farm Bill.

**September 30, 2024:** The Biden administration released its budget request for Fiscal Year 2025 in late March; the topline number is \$7.3 trillion. Lawmakers have until September 30 to pass an appropriations bill to fund the government for FY25.

**December 31, 2024:** Expiration of the National Defense Authorization Act, which authorizes and funds specialized Department of Defense (DoD) programs and sets the DoD's policy agenda each year.

## **ATTACHMENT 2B**

## **KADESH & ASSOCIATES**

South Coast AQMD Report for the August 2024 Legislative Meeting covering June & July 2024 Kadesh & Associates

The post-Memorial Day work period ended up being far more complicated and consequential than anyone in Washington would have guessed. In Congress, the appropriations process began in earnest in both chambers. In the House, the Republican majority has used its bills to impose significant cuts and restraints on agency activities, and it is clear that the depth and breadth of these cuts will make year-end negotiations with the Democratic Senate especially difficult. In the House's Interior-Environment bill, for example, the Environmental Protection Agency (EPA) would see its budget cut by 20% overall, and the bill carries a number of policy riders aimed at air quality and other EPA programs, including one on waiver approval for CARB's off-road vehicle rule, and another that would block EPA's vehicle emissions regulations published earlier this spring. By the time the bill crossed the House floor, it also carried a rider to block approval of CARB's locomotive rule. Notably, however, two of the key air quality accounts were spared from these cuts: the bill has \$90m for DERA and \$67.8m for TAG (both level-funded from last year).

The House's Energy & Water Appropriations Subcommittee funding bill had similar cuts: it would reduce the Department of Energy's Energy Efficiency and Renewable Energy (EERE) account by \$1.5 billion (43%), including \$115 million from the vehicle technologies program (26%), along with other EERE cuts. However, by the end of July, this approach had reached its limits: by the time the House adjourned (early) for the August recess, only five of twelve annual appropriations bills had passed, with the Energy-Water bill pulled from consideration to avoid a failed vote.

One of the major funding disagreements between the Chambers is that Senate Appropriations Chair Patty Murray intends to maintain parity between defense and nondefense accounts – including potential increases to both – while the House has cut nondefense and shifted significant funding to defense accounts. The Senate Appropriations Committee marked up its Interior-Environment bill on July 25, which featured robust funding for air quality programs: \$91m for DERA, \$68.8m for TAG, and an increase of the 103/105 programs to \$237.9m.

The most exciting news from Washington this month, at least from our perspective, was EPA's the Climate Pollution Reduction Grant awards, which included nearly \$500m for South Coast AQMD's INVEST CLEAN proposal to transition the transportation and goods movement sector to ZE technologies. This application has been of great interest to South Coast AQMD's Congressional delegation (both Senators and more than a dozen House members weighed in in support) and was a welcome complement to this month's agreement between EPA, CARB, and the District to collaborate emission reductions.

Besides these EPA announcements, of course, the most nationally significant news from Washington was the decision by President Joe Biden not to run for reelection, after a faltering performance in the June debate and several weeks of intra-party angst. His decision to step

## KADESH & ASSOCIATES

aside was followed by Vice President Kamala Harris' quick consolidation of support from grassroots and party officials, putting her on a glide path to the nomination in just a few short days. Whether this will significantly change the race's trajectory remains to be seen, but it is certainly relevant to Congress' calculations about how to structure a continuing resolution (CR) to avoid a government shutdown at the end of September. There are some in the GOP caucus who would want the CR to run into 2025 so that a new Trump administration could impact final decisions, but of course that won't be determined until November.

Kadesh & Associates Activity Summary-

-Worked with South Coast AQMD and the congressional delegation on whole-of-government efforts to address air quality through BIL and IRA funding programs.

Contacts:

Contacts included staff and Members throughout the CA delegation, Senate offices, and members of key committees. We have also been in touch with administration staff.

###

## **ATTACHMENT 2C**



То:	South Coast AQMD Legislative Committee
From:	Carmen Group
Date:	July 25, 2024
Re:	Federal Update Executive Branch (June and July)

**Congress:** In July, the Republican-controlled House Appropriations Committee approved its version of the FY 25 Interior, Environment appropriations bill covering the Environmental Protection Agency and related agencies. Highlights include: DERA--\$90M; TAG--\$67.8M; 103/105--\$235.9M (All equal to last year). Overall, EPA funding is cut by 20%. Council on Environmental Quality (CEQ) is cut by 78%. In addition, the bill prohibits all funding for Wildfire Smoke Preparedness grants, for the American Climate Corps executive order, and for the implementation of EPA's recent regulations on light, medium and heavy-duty vehicles, and on the power sector (Clean Power Plan 2.0). The bill also blocks EPA allowing a waiver for California to require small off-road engines to be zero emission and blocks NEPA rules that use social cost of carbon in permitting. Meanwhile in late July, the Senate Committee version the same bill was being approved with higher spending and without the noted House funding restrictions.

**Supreme Court:** In June, the Supreme Court overruled the Chevron Doctrine which had granted wide power and discretion to federal agencies to interpret and implement laws, and to issue regulations pursuant to those laws. The 6-3 ruling reverses the Court's 1984 decision in *Chevron v. Natural Resources Defense Council.* The new decision is expected to have wide impact especially with regard to environmental regulations issued by the EPA.

## **Environmental Protection Agency**

South Coast AQMD Receives Nearly \$500 Million CPRG Grant: On July 22, the Environmental Protection Agency (EPA) announced that South Coast Air Quality Management District (SCAQMD) will receive a grant of \$499,997, 415 under the Climate Pollution Reduction Grant (CPRG) program funded by the Inflation Reduction Act passed in 2022. The grant will fund a multitude of efforts to reduce air pollution from transportation and goods movement across Southern California, while also advancing long-sought decarbonization and environmental justice goals. The grant is one of just 25 CPRG grants across 30 states (totaling \$4.3 billion) selected under a highly competitive process that considered nearly 300 applications. This nearly half-billiondollar grant to South Coast AQMD was the only CPRG grant made in California, and it was the largest of the 25 CPRG grants made nationwide. It is also the single largest federal grant ever received by South Coast AQMD.

### Proven Process. Proven Results.™

**EPA Reclassifies Three Ozone Nonattainment Areas from Moderate to Serious**: In June, the EPA reclassified three major Texas metropolitan areas from moderate to serious nonattainment of the current ozone standard. This means the three areas (Dallas-Fort Worth, Houston-Galveston, and San Antonio) will have to implement more stringent emissions control strategies to attain the 2015 NAAQS standard for ozone.

### EPA Cracks Down on GM to Resolve Excess Emissions from Light-Duty Vehicles:

In July, the EPA announced that General Motors had agreed to retire 50 million metric tons of greenhouse gas credits to resolve excess CO2 emissions identified through the agency's light-duty vehicle in-use testing program. The agreement is the result of an EPA investigation that identified excess emissions from approximately 5.9 million 2012-2018 model year (MY) GM vehicles currently in use.

<u>EPA Releases Two Updated Climate Reports:</u> In June and July, the EPA released two updated Climate Reports: <u>EPA's 2024-2027 Climate Adaptation Plan</u> and <u>Climate Change Indicators in the United States</u>.

## **Department of Transportation**

**DOT Announces RAISE Grant Awards:** In July, The Department of Transportation (DOT) announced the distribution of \$1.8 billion for 148 projects nationwide under the RAISE grant program for rebuilding and repairing critical transportation infrastructure. California received four grants: One each in Sacramento and Santa Ana, and two in San Diego.

**<u>FTA Announces Bus Grants</u>:** In July, the Federal Transit Administration (FTA) announced the distribution of \$1.5 billion to support 117 projects that will improve bus transportation in 47 states, with a special emphasis and modernizing local bus fleets with low and no emission transit buses. The funds are made available under the FTA's Bus and Bus Facilities program and the Low and No Emission program.

**DOT Announces Funds Available for Reconnecting Communities Grant Program:** In July, the DOT announced the availability of more than \$600 million for the next round of grants under the combined Reconnecting Communities Pilot and Neighborhood Access and Equity grant programs. Applications are due on September 30, 2024.

**FAA Announces Airport Grants:** In June and July, the Federal Aviation Administration (FAA) announced the distributions of two rounds of airport grants under the Airport Infrastructure Grants (AIG) program, totaling \$476 million for 239 projects, and one round of grants under the Airport Improvement Program (AIP), totaling \$123 million for 235 projects.

**<u>NHTSA Finalizes New Fuel Economy Standards</u>:** In June, the National Highway Traffic Safety Administration (NHTSA) issued new fuel economy standards, boosting fuel efficiency by 2% per year in model years 2027-2031 for passenger cars, while light trucks will increase by 2% per year for model years 2029-2031. This will bring light duty fuel efficiency up to 54 miles per gallon by model year 2031. Heavy duty pickup truck and van fuel efficiency will increase 10% per year for model years 2030-2032 and

8% per year for model years 2033-2035. This will bring the fleet-wide average to 35 miles per gallon in model year 2035.

**MARAD to Establish Innovation Center to Address Environmental Challenges:** In June, the Maritime Administration's (MARAD's) Maritime Environmental and Technical Assistance Program (META) sought input on its plan to establish a United States Center for Maritime Innovation. The Center would support the study, research, development, assessment and deployment of emerging maritime technologies and practices related to emerging environmental challenges in the maritime transportation system.

## **Department of Energy**

**DOE Announces Funds to Convert Auto Manufacturing Facilities to EVs:** In July, the Department of Energy announced \$1.7 billion to support the conversion of 11 shuttered or at-risk auto manufacturing and assembly facilities in eight states (MI, OH, PA, GA, IL, IN, MD and VA) to manufacture electric vehicles (EVs) and their supply chain. The funds are made possible under the Domestic Auto Manufacturing Conversion Grants program established under the Inflation Reduction Act and are covered by the Administration's Justice40 initiative.

**DOE/EPA Announce Funds Available to Reduce Methane Emissions:** In June, the Department of Energy (DOE) and the EPA announced the availability of \$850 million from the Inflation Reduction Act for projects to help monitor, measure, and reduce methane emissions from the oil and gas sector. Applications are due on August 26, 2024.

**DOE Announces Funds Available for Small Manufacturers to Reduce Emissions:** In June, the EPA announced the next round of rolling applications for funds available to help small and medium manufacturers to reduce emissions and enhance energy efficiencies. The Industrial Assessments Centers (IAC) Implementation Grant program is administered by DOE's Manufacturing and Energy Supply Chains Office (MESC) and provides grants up to \$300,000 per manufacturer per funding round. Applications for the current round are due October 1, 2024, and the following round will open on October 2, 2024.

**DOE Releases National Definition of a Zero Emissions Building:** In June, the DOE announced the release of a "National Definition of a Zero Emissions Building," designed to serve as guidance to advance public and private sector efforts convert more commercial and residential buildings towards the overall goal of zero emissions. National Definition of a Zero Emissions Building

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**Outreach:** Carmen Group was in contact with EPA staff on the CPRG and Clean Ports grant programs and with DOT staff of the agency's Transportation and Climate Symposium.

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## **ATTACHMENT 3A**



# CALIFORNIA ADVISORS, LLC

South Coast AQMD Report California Advisors, LLC September 13, 2024, Legislative Committee Hearing

## Legislative Update

The State Legislature returned from its summer recess on August 5<sup>th</sup> and has been working to complete all unfinished business before final recess begins upon adjournment on August 31<sup>st</sup>. The first half of August was occupied by the appropriations committees either passing bills or holding them in suspense. The suspense file process, which assesses legislation with major fiscal impacts, offers the Legislature a mechanism to hold costly bills without extensive debate. Given the challenging fiscal environment the state is currently operating in, appropriations committees held a greater percentage of bills in suspense than average. The Senate Appropriations Committee held 173 of 515 Assembly bills, while Assembly Appropriations held 94 of 315 Senate bills for an overall rate of 33% of bills held.

From August 19<sup>th</sup> until August 31<sup>st</sup> the State Legislature may only hold floor session. During these sessions the Legislature can vote on and amend all remaining active bills. An important deadline during this period is the 72-hour in-print rule which ensures transparency and public awareness by requiring that legislative bills be available to the public for review at least 72 hours before they are voted on. The final deadline for the Legislature to act on bills is midnight on August 31<sup>st</sup>. The Governor has until September 30<sup>th</sup> to sign or veto bills that make it to his desk.

## **Budget Update**

July 2024 tax receipts were released by the California Department of Finance (DOF) in its August Finance Bulletin. Preliminary General Fund agency cash receipts were 10.1% above Budget Act forecasts for July. The DOF thinks the increased tax receipts are due to one-time actions by a limited number of taxpayers, rather than evidence of a structural surplus. Notably, corporation tax cash receipts were 161.8% above forecast and personal income tax cash receipts were 5.8% above forecast, while sales tax receipts were 18.4% below forecast. Since April, preliminary General Fund agency cash receipts have been \$4.2 billion above projections.

### **General Updates**

The Western Climate Initiative released the results of the August 2024 California Carbon Auction (CCA) on August 21<sup>st</sup>. The CCA raised \$950 million, and all carbon allowances offered at the auction were sold. However, the August auction settlement price was \$30.24, down from

\$37.02 in May. If this trend continues funding for the Greenhouse Gas Reduction Fund and its associated programs will be strained. The next auction will be conducted November 20<sup>th</sup>, 2024.

Additionally, on August 28<sup>th</sup> the Governor's Office sent out a press release touting the number of electric vehicle chargers in the State. California recently surpassed 150,000 electric vehicle chargers installed statewide. The state is expected to receive \$380 million from the Bipartisan Infrastructure Law to continue deploying EV charging stations. Since the beginning of 2024 the CEC has also approved more than \$1 billion for electric and hydrogen vehicle refueling projects.

## **ATTACHMENT 3B**



TO:South Coast Air Quality Management DistrictFROM:Anthony, Jason & Paul GonsalvesSUBJECT:Legislative Update – August 2024DATE:Wednesday, August 28, 2024

On August 5, 2024, the Legislature returned from their summer recess focused on moving their remaining bills through the legislative process and on to the Governor, as the end of session is quickly approaching. The Legislature will adjourn sine die this Saturday, August 31, 2024. With a sizeable delegation of Democratic legislators absent to attend the Democratic National Convention, legislators have been forced to stay in session late into the evening to catch up in advance of the August 31, 2024 deadline.

The following will provide you with updates of interest to the District:

#### CAP AND TRADE

In August, 2024, California held its 40th cap-and-trade auction, which generated \$950 million for the Greenhouse Gas Reduction Fund (GGFR), selling all available allowances for the 16<sup>th</sup> consecutive auction. However, the settlement prices were significantly lower compared to previous auctions, which has sparked discussions about the future of California's cap-and-trade program.

The auction sold all 51,179,715 current vintage allowances. However, the settlement price of \$30.24 was significantly lower than the \$37.02 seen in May. This drop, while the auction still sold out, indicates that market participants might be cautious about future developments.

Similarly, all 7,211,000 future vintage allowances were purchased, settling at \$29.75, a decline from \$38.35 in May. These allowances, which can be used for compliance starting in 2027, also reflect market uncertainty about the program's long-term prospects.

The decline in settlement prices suggests that there is growing uncertainty within the market regarding the design and future of California's cap-and-trade program. CARB is expected to play a crucial role in addressing these concerns through upcoming rulemaking processes. The market appears to be particularly uncertain about how and when CARB will tighten the program before 2030.

#### **OWN DAMN SATELLITE**

On August 16, 2024, California fulfilled a commitment made by former Governor Jerry Brown by launching its "own damn satellite", to monitor hazardous pollutants such as methane. Addressing methane emissions is essential in the fight against the climate crisis, as methane is 80 times more effective than carbon dioxide at causing near-term global warming.

Planet Labs successfully deployed its Tanager-1 satellite from Vandenberg Space Force Base. This satellite is engineered to detect, locate, and measure super-emitters with the level of detail necessary for targeted mitigation efforts. The launch was facilitated by the Carbon Mapper Coalition, a philanthropically-supported collaboration aimed at enhancing methane and CO2 monitoring systems. The coalition, led by the nonprofit Carbon Mapper, Inc., includes partners such as Planet Labs PBC, NASA JPL, RMI, CARB, and Arizona State University, among others. It has also received significant support from organizations like High Tide Foundation, Bloomberg Philanthropies, and the Grantham Foundation.

As part of Governor Newsom's California Climate Commitment budget, the state has allocated \$100 million to utilize satellite data on methane, which could aid in tracking approximately 40% of global methane emissions.

This initiative, originally inspired by former Governor Brown in 2018, reflects his assertion: "We're going to launch our own damn satellite to figure out where the pollution is and how we're going to end it." The satellite represents a significant advancement, equipping California with a sophisticated tool to dramatically reduce methane emissions. It enhances response efforts by swiftly identifying high methane sources, and the data it gathers will offer detailed and timely measurements of methane emissions as well as over 25 other environmental factors.

The satellite data on methane will be essential for California to hold polluters accountable, and will also provide the global community with transparent quick access to information about leaks when they occur. Should any leaks be identified, the state will inform the responsible parties and pursue enforcement actions, if necessary.

#### ZERO EMISSION BUSES

On August 27, 2024, California announced it is launching a new statewide funding initiative that will introduce 1,000 additional zero-emission school buses, reinforcing the state's position as the leader in clean school buses nationwide. This comes in addition to the 1,100 clean school buses already operating on California roads and another 1,200 set to be deployed soon.

The program will allocate \$500 million—marking the largest single state investment in history—to school districts and other educational institutions for the replacement of aging school buses with zero-emission vehicles and for purchasing necessary infrastructure. The Zero-Emissions School Bus and Infrastructure (ZESBI) program is currently accepting applications for funding until September 30, 2024.

The program is a collaborative effort between the California Air Resources Board (CARB) and the California Energy Commission (CEC), and is administered by CALSTART. Award recipients can receive up to \$375,000 for replacing internal combustion engine school buses with zero-emission vehicles, along with grants of up to \$95,000 per bus for purchasing and installing necessary charging infrastructure. Recipients will be required to retire an old school bus for each new one they purchase.

Zero-emission school buses are vital to California's goal of achieving carbon neutrality by 2045 and serve to protect children, who are especially vulnerable to the health risks posed by diesel exhaust. By 2035, all school bus purchases made by school districts in California will have to be zero-emission technology, with an extension until 2040 granted for rural districts.

To date, California has invested over \$1.3 billion in incentives for school districts, funding over 2,300 zero-emission school buses, 1,100 of which are already in operation. More than 70% of these buses

serve areas facing the highest pollution burdens. Over 300 school districts and local education agencies in California have acquired at least one zero-emission bus, with some transitioning to a fully clean fleet.

#### **CLEAN TRANSPORTATION**

The Federal Government is allocating hundreds of millions of dollars to California for transportation infrastructure upgrades. California, in collaboration with Oregon and Washington, secured \$102 million for the installation of charging stations and hydrogen fueling stations for zero-emissions trucks along Interstate 5 and other vital freight corridors. Additionally, \$47 million will be distributed to various entities throughout the state for electric vehicle infrastructure development. This funding comes on top of over \$250 million recently announced for airport upgrades in California and the promotion of sustainable aviation fuel.

The West Coast Truck Charging and Fueling Corridor Project is a multi-state initiative aimed at accelerating the adoption of zero-emission vehicles (ZEVs) within the trucking and logistics sectors. This funding is made possible through the federal Bipartisan Infrastructure Law. Although trucks represent only 6% of vehicles on California's roads, they contribute to more than 35% of the state's transportation-related emissions of smog-forming nitrogen oxides and account for a quarter of the state's on-road greenhouse gas emissions.

The funds will lead to the establishment of new publicly accessible charging and hydrogen fueling stations, facilitating emissions-free goods movement at local, regional, national, and international levels. Construction of these stations is projected to commence in 2026. These new facilities will complement California's policy requiring an increasing percentage of truck sales to be ZEVs.

In 2021, Oregon and Washington followed California's lead as the second and third states to adopt such a policy. By 2023, one in six new medium- and heavy-duty trucks sold in California were zero-emission vehicles, surpassing the state's ZEV sales targets two years ahead of schedule.

This funding will further aid the implementation of the Advanced Clean Fleets (ACF) standard established by California in 2023. Under the ACF guidelines, fleets statewide will begin a gradual shift to ZEVs, with all new medium- and heavy-duty truck sales required to be ZEVs by 2036.

Funding for the West Coast Truck Charging and Fueling Corridor Project supplements other state-funded initiatives aimed at zero-emission trucks. California has allocated over \$780 million to assist fleet operators in purchasing zero-emission trucks, and the state's Climate Commitment includes more than \$10 billion to expedite the ZEV transition and establish charging and fueling infrastructure.

In addition, the U.S. Department of Transportation has recently announced over \$250 million in funding for California airports and sustainable aviation fuels. Specifically, California airports will receive \$51.6 million through the Airport Improvement Program, along with \$78.2 million from the Airport Infrastructure Grants program. These funds can be utilized for various purposes, including airport planning, development, sustainability initiatives, terminal expansions, baggage system upgrades, safety improvements, and noise compatibility projects at eligible airports.

Moreover, California companies will benefit from over \$120 million awarded through the federal Fueling Aviation's Sustainable Transition (FAST) grants program. These resources will support California's shift to more sustainable aviation fuels and efforts to reduce aviation emissions, a priority outlined by the Governor in 2022.

#### **LEGISLATION**

SB 1158 (Archuleta): This bill is sponsored by SCAQMD and proposes to extend the time air districts have to use Carl Moyer Program funds from 4 to 6 years.

SB 1158 passed out of the Assembly Appropriations Committee on August 7, 2024 on the consent calendar with a vote of 14-0.

On August 15, 2024, SB 1158 passed off the Assembly floor on the Consent Calendar with a vote of 75-0.

SB 1158 was presented to the Governor on August 22, 2024 and he now has until September 30, 2024 to take action on the bill.

#### **2024 LEGISLATIVE DEADLINES**

- August 5 Legislature reconvenes from Summer Recess.
- August 16 Last day for fiscal committees to meet and report bills.
- August 19-31 Floor session only. No committee may meet for any purpose except Rules Committee, bills referred pursuant to Assembly Rule 77.2, and Conference Committees.
- August 23 Last day to amend bills on the Floor.
- August 31 Last day for each house to pass bills. Final Recess begins upon adjournment

## ATTACHMENT 3C



## South Coast Air Quality Management District Legislative and Regulatory Update –August 2024

### Important Upcoming Dates

August 31, 2024 -Last Day for Each House to Pass BillsSeptember 30, 2024 -Last Day for Governor to Sign or Veto Legislation

#### ✤ RESOLUTE Actions on Behalf of South Coast AQMD. RESOLUTE partners David Quintana, and Alfredo Arredondo continued their representation of SCAQMD before the State's Legislative and the Executive branch. Selected highlights of our recent advocacy include:

- Provided ongoing updates as the Legislature worked to pass legislation in the end of session.
- Set and attended meetings with legislative offices regarding bills for the 2024 legislative session, including for SCAQMD sponsored legislation.

#### ✤ AB 2522 (W. Carrillo): SCAQMD Sponsored Legislation

Summary: the bill states that each member of the board shall receive compensation of up to \$200 for each day, or portion thereof, but not to exceed up to \$2,000 per month, while attending meetings of the board or any committee, or on official business of the district. The bill also authorizes future increases to the compensation amount pegged to the Consumer Price Index (CPI) with a ceiling of 10 percent per calendar year.

The bill passed the Senate Floor on August 27 with 29 Ayes, 11 Noes, and 0 Abstains.

The bill passed the Assembly Floor (Concurrence Vote) on August 28 with 60 Ayes, 15 Noes, and 4 Abstains.

The bill will now head to the Governor where he will have until September 30 to sign or veto the legislation.

#### ✤ AB 2958 (Calderon): SCAQMD Sponsored Legislation

Summary: this bill repeals the existing statute prohibiting compensation for CARB members that represent Air Districts and provides that such board members will receive the same salary as other voting CARB board members. In doing so, the bill addresses the inequity in compensation among CARB board members.

The bill was placed on the Suspense File by the Senate Appropriations Committee on August 5 with 7 Ayes and 0 No votes.

The bill was held by the Senate Appropriations Committee on August 15.

GGRF (Greenhouse Gas Reduction Fund) Auction Revenue. On August 21, CARB released the results of the latest Cap and Trade Auction that funds the GGRF. This auction represents the FIRST quarterly auction of the 2024-2025 Fiscal Year. A total of \$950 million was raised at the August auction for the GGRF. This result is about \$200 million in less revenue compared to the May Auction.

The results summary can be found here: <u>https://ww2.arb.ca.gov/sites/default/files/2024-08/nc-aug 2024 summary results report.pdf</u>

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BOARD MEETING DATE: October 4, 2024

AGENDA NO. 19

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: The Mobile Source Air Pollution Reduction Review Committee held a hybrid meeting on Thursday, September 19, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Daphne Hsu Principal Deputy District Counsel South Coast AQMD

AK:CR:me

### **Contract Modification Requests**

The MSRC considered three contract modification requests and took the following actions:

- 1. City of Glendale, Contract #ML18059 to install electric vehicle charging infrastructure, approval to reallocate \$27,605 from Level III to Level II charging station installations;
- 2. BNSF Railway Company, Agreement #MS21023 to install electric vehicle charging infrastructure, approval of twelve-month term extension, and
- 3. ITS Technologies & Logistics, dba ConGlobal, Agreement #MS21009 to deploy 12 zero-emission yard tractors, approval of nine-month term extension.

### **Programmatic Outreach Services**

The MSRC released a Request for Proposals for the solicitation of Programmatic Outreach Services on May 3, 2024. The selected contractor would assist in promoting the MSRC's Clean Transportation Funding<sup>™</sup> programs as well as providing outreach assistance to current and prospective MSRC project implementers. The MSRC approved a contract award to Better World Group Advisors in an amount not to exceed \$300,000 for the base three-year period as part of the FYs 2024-27 Work Program, with an option for up to an additional two-years subject to future approval by the MSRC and South Coast AQMD Board.

## FYs 24-27 Work Program Development Update

Staff provided an update on the MSRC-TAC's progress in development of the FYs 24-27 Work Program, with reports on candidate Work Program categories under evaluation by the Partnership, Innovation, and Innovative Transportation Control Measure/Transportation Demand Management Subcommittees. Action items are anticipated to be brought forward beginning in October.

## **Contracts Administrator's Report**

The MSRC AB 2766 Contracts Administrator's report provides a written status report on all open contracts from FY 2011-12 to the present. The Contracts Administrator's Report for July 25, 2024 through August 28, 2024 is attached (*Attachment 1*).

## Attachments

- 1. July 25 through August 28, 2024 Contracts Administrator's Report
- 2. Minutes of April 18, 2024 MSRC Meeting
- 3. Minutes of May 16, 2024 MSRC Meeting



### MSRC Agenda Item No. 2

DATE:	September 19, 2024
FROM:	Cynthia Ravenstein
SUBJECT:	AB 2766 Contracts Administrator's Report
SYNOPSIS:	This report covers key issues addressed by MSRC staff, status of open contracts, and administrative scope changes from July 25 to August 28, 2024.
<b>RECOMMENDATION:</b>	Receive and file report
WORK PROGRAM IMPACT:	None

### **Contract Execution Status**

#### 2021-24 Work Program

On September 2, 2022, the SCAQMD Governing Board approved an award under the Major Event Center Transportation Program. This contract is executed.

On February 3, 2023, the SCAQMD Governing Board approved an award under the Transformative Transportation Strategies & Mobility Solutions Program. This contract is executed.

On June 2, 2023, the SCAQMD Governing Board approved six awards under the Microtransit Service RFP, for zero-emission shared mobility service. These contracts are executed.

On September 1, 2023, the SCAQMD Governing Board approved two awards under the Publicly Accessible Goods Movement Zero Emission Infrastructure Request for Information. One of these contracts will be administered by SCAQMD on behalf of the MSRC, and the other award is conditional upon successful selection of a site developer and operator and securing co-funding commitments.

On February 2, 2024, the SCAQMD Governing Board approved allocations for partnership in applications seeking funding under the Carl Moyer Program solicitation. If the applications are awarded funding, to the extent feasible these contracts will be administered by SCAQMD on behalf of the MSRC.

### Work Program Status

Contract Status Reports for Work Program years with open and/or pending contracts are attached.

### FY 2011-12 Work Program Contracts

One contract is in "Open/Complete" status, having completed all obligations except operations.

### FY 2011-12 Invoices Paid

No invoices were paid during this period.

### FYs 2012-14 Work Program Contracts

2 contracts from this Work Program year are open, and 3 are in "Open/Complete" status. 3 contracts closed during this period: County of Los Angeles, Contract #ML14025 – Construct New CNG Station in Malibu; County of Los Angeles, Contract #ML14026 – Construct New CNG Station in Castaic; and City of Duarte, Contract #ML14067 – Purchase 10 Electric Buses.

### FYs 2012-14 Invoices Paid

No invoices were paid during this period.

### FYs 2014-16 Work Program Contracts

6 contracts from this Work Program year are open, and 12 are in "Open/Complete" status. 3 contracts closed during this period: City of Moreno Valley, Contract #ML16041 – Install EV Charging Infrastructure; County of Los Angeles, Contract #ML16058 – Purchase 11 Heavy-Duty Natural Gas Vehicles & Install EV Charging Infrastructure; City of Norwalk, Contract #MS16114 – Purchase 3 Transit Buses.

### FYs 2014-16 Invoices Paid

2 invoices totaling \$57,391.57 were paid during this period.

### FYs 2016-18 Work Program Contracts

32 contracts from this Work Program year are open, and 58 are in "Open/Complete" status. One contract closed during this period: City of Orange, Contract #ML18136 – Procure 4 Light-Duty ZEVs.

### FYs 2016-18 Invoices Paid

One invoice in the amount of \$50,000.00 was paid during this period.

### FYs 2018-21 Work Program Contracts

10 contracts from this Work Program year are open, and 5 are in "Open/Complete" status. One contract moved into "Open/Complete" status during this period: 4 Gen Logistics, Contract #MS21013 – Deploy 40 Zero-Emission Trucks.

### FYs 2018-21 Invoices Paid

5 invoices totaling \$214,935.25 were paid during this period.

### FYs 2021-24 Work Program Contracts

8 contracts from this Work Program year are open.

### FYs 2021-24 Invoices Paid

No invoices were paid during this period.

### Administrative Scope Changes

2 administrative scope changes were initiated during the period from July 25 to August 28, 2024:

- City of Laguna Woods, Contract #ML18094 (Install EV Charging Infrastructure) Clarify that installation requirement is for a number of charging ports rather than stations
- Volvo Financial Services, Contract #MS21019 (Lease up to 14 Zero-Emission Trucks and Provide Charging Infrastructure) Nine-month no-cost term extension

### Attachments

• FY 2011-12 through FYs 2021-24 Contract Status Reports



ML12046

City of Irvine

8/11/2013

3/10/2021

8/29/2024

\$0.00

Yes

		Start Date	End Date	End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 201	1-2012 Contracts								
	Cancelled Contracts								
ML12016	City of Cathedral City	1/4/2013	10/3/2019		\$60,000.00	\$0.00	CNG Vehicle & Electric Vehicle Infrastructur	\$60,000.00	No
ML12038	City of Long Beach Public Works				\$26,000.00	\$0.00	Electric Vehicle Charging Infrastructure	\$26,000.00	No
ML12040	City of Duarte				\$30,000.00	\$0.00	One Heavy-Duty Nat. Gas Vehicle	\$30,000.00	No
ML12044	County of San Bernardino Public Wo				\$250,000.00	\$0.00	Install New CNG Station	\$250,000.00	No
ML12048	City of La Palma	1/4/2013	11/3/2018		\$20,000.00	\$0.00	Two Medium-Duty LPG Vehicles	\$20,000.00	No
ML12052	City of Whittier	3/14/2013	7/13/2019		\$165,000.00	\$0.00	Expansion of Existing CNG Station	\$165,000.00	No
ML12053	City of Mission Viejo				\$60,000.00	\$0.00	EV Charging Infrastructure	\$60,000.00	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021	9/8/2025	\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
MS12007	WestAir Gases & Equipment				\$100,000.00	\$0.00	Construct New Limited-Acess CNG Station	\$100,000.00	No
MS12027	C.V. Ice Company, Inc.	5/17/2013	11/16/2019		\$75,000.00	\$0.00	Purchase 3 Medium-Heavy Duty Vehicles	\$75,000.00	No
MS12030	Complete Landscape Care, Inc.				\$150,000.00	\$0.00	Purchase 6 Medium-Heavy Duty Vehicles	\$150,000.00	No
MS12067	Leatherwood Construction, Inc.	11/8/2013	3/7/2017		\$122,719.00	\$0.00	Retrofit Six Vehicles w/DECS - Showcase III	\$122,719.00	No
MS12070	Valley Music Travel/CID Entertainme				\$99,000.00	\$0.00	Implement Shuttle Service to Coachella Mus	\$99,000.00	No
Total: 13				1 1					
Closed Co	ntracts								
ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	\$200,000.00	\$65,065.00	Electric Vehicle Charging Infrastructure	\$134,935.00	Yes
ML12014	City of Santa Ana - Public Works Ag	11/8/2013	8/7/2020	2/7/2022	\$338,000.00	\$255,977.50	9 H.D. Nat. Gas & LPG Trucks, EV Charging	\$82,022.50	Yes
ML12015	City of Fullerton	4/25/2013	11/24/2020	11/24/2021	\$40,000.00	\$40,000.00	HD CNG Vehicle, Expand CNG Station	\$0.00	Yes
ML12017	City of Los Angeles, Bureau of Sanit	6/26/2013	5/25/2020	11/25/2021	\$950,000.00	\$950,000.00	32 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12018	City of West Covina	10/18/2013	10/17/2020	8/17/2023	\$300,000.00	\$300,000.00	Expansion of Existing CNG Station	\$0.00	Yes
ML12019	City of Palm Springs	9/6/2013	7/5/2015		\$38,000.00	\$16,837.00	EV Charging Infrastructure	\$21,163.00	Yes
ML12020	City of Los Angeles Dept of General	9/27/2012	3/26/2019	3/26/2020	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12021	City of Rancho Cucamonga	9/14/2012	1/13/2020		\$40,000.00	\$40,000.00	Four Medium-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12022	City of La Puente	12/6/2013	6/5/2020		\$110,000.00	\$110,000.00	2 Medium-Duty and Three Heavy-Duty CNG	\$0.00	Yes
ML12023	County of Los Angeles Internal Servi	8/1/2013	2/28/2015		\$250,000.00	\$192,333.00	EV Charging Infrastructure	\$57,667.00	Yes
ML12037	Coachella Valley Association of Gov	3/14/2013	3/13/2014		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML12039	City of Redlands	2/8/2013	10/7/2019		\$90,000.00	\$90,000.00	Three Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2017	\$68,977.00	\$38,742.16	EV Charging Infrastructure	\$30,234.84	Yes
ML12042	City of Chino Hills	1/18/2013	3/17/2017		\$87,500.00	\$87,500.00	Expansion of Existing CNG Station	\$0.00	Yes
ML12043	City of Hemet	6/24/2013	9/23/2019	11/23/2021	\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes

\$30,000.00

\$30,000.00

One Heavy-Duty Nat. Gas Vehicle

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12047	City of Orange	2/1/2013	1/31/2019		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
ML12049	City of Rialto Public Works	7/14/2014	9/13/2015		\$30,432.00	\$3,265.29	EV Charging Infrastructure	\$27,166.71	Yes
ML12050	City of Baldwin Park	4/25/2013	4/24/2014	10/24/2014	\$402,400.00	\$385,363.00	EV Charging Infrastructure	\$17,037.00	Yes
ML12054	City of Palm Desert	9/30/2013	2/28/2015		\$77,385.00	\$77,385.00	EV Charging Infrastructure	\$0.00	Yes
ML12055	City of Manhattan Beach	3/1/2013	12/31/2018		\$10,000.00	\$10,000.00	One Medium-Duty Nat. Gas Vehicle	\$0.00	Yes
ML12056	City of Cathedral City	3/26/2013	5/25/2014		\$25,000.00	\$25,000.00	Regional Street Sweeping Program	\$0.00	Yes
ML12057	City of Coachella	8/28/2013	8/27/2019	1/27/2022	\$57,456.00	\$57,456.00	Purchase One Nat. Gas H.D. Vehicle/Street	\$0.00	Yes
ML12066	City of Manhattan Beach	1/7/2014	4/6/2015		\$5,900.00	\$5,900.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML12091	City of Bellflower	10/5/2018	10/4/2019	6/30/2022	\$100,000.00	\$49,230.44	EV Charging Infrastructure	\$50,769.56	Yes
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		\$300,000.00	\$211,170.00	Clean Fuel Transit Service to Dodger Stadiu	\$88,830.00	Yes
MS12002	Orange County Transportation Autho	9/7/2012	4/30/2013		\$342,340.00	\$333,185.13	Express Bus Service to Orange County Fair	\$9,154.87	Yes
MS12003	Orange County Transportation Autho	7/20/2012	2/28/2013		\$234,669.00	\$167,665.12	Implement Metrolink Service to Angel Stadiu	\$67,003.88	Yes
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12005	USA Waste of California, Inc.	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12006	Waste Management Collection & Re	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		\$150,000.00	\$150,000.00	Construct New Public-Access LNG Station	\$0.00	Yes
MS12010	Murrieta Valley Unified School Distric	4/5/2013	9/4/2019		\$242,786.00	\$242,786.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	5/28/2021	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12012	Rim of the World Unified School Dist	12/20/2012	5/19/2014		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12024	Southern California Gas Company	6/13/2013	12/12/2019	11/12/2020	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12025	Silverado Stages, Inc.	11/2/2012	7/1/2018		\$150,000.00	\$150,000.00	Purchase Six Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12026	U-Haul Company of California	3/14/2013	3/13/2019		\$500,000.00	\$353,048.26	Purchase 23 Medium-Heavy Duty Vehicles	\$146,951.74	Yes
MS12028	Dy-Dee Service of Pasadena, Inc.	12/22/2012	1/21/2019		\$45,000.00	\$40,000.00	Purchase 2 Medium-Duty and 1 Medium-He	\$5,000.00	Yes
MS12029	Community Action Partnership of Or	11/2/2012	11/1/2018		\$25,000.00	\$14,850.00	Purchase 1 Medium-Heavy Duty Vehicle	\$10,150.00	Yes
MS12031	Final Assembly, Inc.	11/2/2012	11/1/2018		\$50,000.00	\$32,446.00	Purchase 2 Medium-Heavy Duty Vehicles	\$17,554.00	Yes
MS12032	Fox Transportation	12/14/2012	12/13/2018		\$500,000.00	\$500,000.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$148,900.00	\$148,900.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	5/1/2022	\$133,070.00	\$133,070.00	Purchase 8 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12035	Disneyland Resort	1/4/2013	7/3/2019		\$25,000.00	\$18,900.00	Purchase 1 Medium-Heavy Duty Vehicle	\$6,100.00	Yes
MS12036	Jim & Doug Carter's Automotive/VS	1/4/2013	11/3/2018		\$50,000.00	\$50,000.00	Purchase 2 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12058	Krisda Inc	4/24/2013	1/23/2019		\$25,000.00	\$25,000.00	Repower One Heavy-Duty Off-Road Vehicle	\$0.00	Yes
MS12059	Orange County Transportation Autho	2/28/2013	12/27/2014		\$75,000.00	\$75,000.00	Maintenance Facilities Modifications	\$0.00	Yes
MS12060	City of Santa Monica	4/4/2014	8/3/2017	8/3/2019	\$500,000.00	\$434,202.57	Implement Westside Bikeshare Program	\$65,797.43	Yes
MS12061	Orange County Transportation Autho	3/14/2014	3/13/2017		\$224,000.00	\$114,240.00	Transit-Oriented Bicycle Sharing Program	\$109,760.00	Yes
MS12062	Fraser Communications	12/7/2012	5/31/2014		\$998,669.00	\$989,218.49	Develop & Implement "Rideshare Thursday"	\$9,450.51	Yes
MS12063	Custom Alloy Light Metals, Inc.	8/16/2013	2/15/2020		\$100,000.00	\$100,000.00	Install New Limited Access CNG Station	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS12064	Anaheim Transportation Network	3/26/2013	12/31/2014		\$127,296.00	\$56,443.92	Implement Anaheim Circulator Service	\$70,852.08	Yes
MS12065	Orange County Transportation Autho	7/27/2013	11/30/2013		\$43,933.00	\$14,832.93	Ducks Express Service to Honda Center	\$29,100.07	Yes
MS12068	Southern California Regional Rail Au	3/1/2013	9/30/2013		\$57,363.00	\$47,587.10	Implement Metrolink Service to Autoclub Sp	\$9,775.90	Yes
MS12069	City of Irvine	8/11/2013	2/28/2014		\$45,000.00	\$26,649.41	Implement Special Transit Service to Solar	\$18,350.59	Yes
MS12071	Transit Systems Unlimited, Inc.	5/17/2013	12/16/2018		\$21,250.00	\$21,250.00	Expansion of Existing CNG Station	\$0.00	Yes
MS12072	99 Cents Only Stores	4/5/2013	9/4/2019		\$100,000.00	\$100,000.00	Construct New CNG Station	\$0.00	Yes
MS12073	FirstCNG, LLC	7/27/2013	12/26/2019		\$150,000.00	\$150,000.00	Construct New CNG Station	\$0.00	Yes
MS12074	Arcadia Unified School District	7/5/2013	9/4/2019		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12075	CR&R Incorporated	7/27/2013	1/26/2021	1/26/2022	\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12076	City of Ontario, Housing & Municipal	3/8/2013	4/7/2015		\$75,000.00	\$75,000.00	Maintenance Facilities Modification	\$0.00	Yes
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$73,107.00	Maintenance Facility Modifications - Vernon	\$1,893.00	Yes
MS12080	City of Pasadena	11/8/2013	8/7/2020	2/7/2022	\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$75,000.00	Maintenance Facility Modifications - Santa A	\$0.00	Yes
MS12082	City of Los Angeles, Bureau of Sanit	11/20/2013	2/19/2021	2/19/2023	\$175,000.00	\$175,000.00	Install New CNG Infrastructure	\$0.00	Yes
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		\$59,454.00	\$59,454.00	Install New CNG Infrastructure	\$0.00	Yes
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		\$75,000.00	\$75,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS12086	SuperShuttle International, Inc.	3/26/2013	3/25/2019		\$225,000.00	\$225,000.00	Purchase 23 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12087	Los Angeles County MTA	8/29/2013	11/28/2015		\$125,000.00	\$125,000.00	Implement Rideshare Incentives Program	\$0.00	Yes
MS12088	Orange County Transportation Autho	12/6/2013	3/5/2016		\$125,000.00	\$18,496.50	Implement Rideshare Incentives Program	\$106,503.50	Yes
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		\$249,136.00	\$105,747.48	Implement Rideshare Incentives Program	\$143,388.52	Yes
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	Yes
Total: 74									
Closed/Inco	omplete Contracts								
ML12051	City of Bellflower	2/7/2014	2/6/2016	5/6/2018	\$100,000.00	\$0.00	EV Charging Infrastructure	\$100,000.00	No
MS12077	City of Coachella	6/14/2013	6/13/2020		\$225,000.00	\$0.00	Construct New CNG Station	\$225,000.00	No
MS12079	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$0.00	Maintenance Facility Modifications - Boyle H	\$75,000.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		\$150,000.00	\$0.00	Install New CNG Infrastructure	\$150,000.00	No
Total: 4									
Open/Comp	olete Contracts								

 ML12045
 City of Baldwin Park DPW
 2/14/2014
 12/13/2020
 12/13/2026
 \$400,000.00
 Install New CNG Station
 \$0.00
 Yes

Total: 1

MS14057         Los Angeles County MTA         11/7/2014         10/8/2019         \$1,250,000.00         \$0.00         Implement Various Signal Synchronization P         \$1,250,000.00         No           Total: 2         2         52,000.00         \$0.00         Expansion of Exising CNG Infrastructure         \$32,000.00         No           ML14086         City of Hawmorne         332,017         322,002.5         \$200,000         \$0.000         Electric Vehice Charging Infrastructure         \$20,000.00         No           MS14085         Penske Truck Leasing Co., L.P.         222,020,000.00         \$0.000         Vehicle Maint, Fac. Modifications - Sun Yalle         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         275,000.00         \$0.000         Vehicle Maint, Fac. Modifications - Fontana         \$75,000.00         No           MS14048         City of Anaheim         94/2015         \$3/2022         \$16,000.00         \$0.000         New Public Access CNG Station         \$17,5000.00         No           MS14048         Penske Truck Leasing Co., L.P.         94/2015         \$120,000.00         \$0.000         New Public Access CNG Station         \$150,000.00         No           MS14048         Penske Truck Leasing Co., L.P.         94/2015         \$120,000.00         \$0.00         New Public Ac	Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML1402         County of Los Angeles Dept of Publit         10/2/2015         61/2/023         81/2/028         51/2/028         51/2/020         50.00         Construct New CNG Station in Caryon County         81/42,000.00         No           MS14057         Los Angeles County MTA         11/7/2014         10/8/2019         10/3/1/2028         \$1/250,000.00         S0.00         Implement Various Signal Synchronization P         \$1/250,000.00         No           ML14086         City of Hawthome         S20,000.00         \$50.00         Expansion of Existing CNG Infrastructure         \$10,183.00         No           ML14086         City of Josuth Pasadena         9/12/2014         10/11/2020         \$10,183.00         S0.00         Controt New CNG Stating CNG Infrastructure         \$10,183.00         No           ML14086         City of Desumont         3/3/2017         3/2/2025         \$200.000.00         \$0.00         Vehicle Maint, Fac. Modifications - Su Valle         \$75.000.00         No           MS14038         Penske Truck Leasing Co., L.P.          \$75.000.00         \$0.00         Vehicle Maint, Fac. Modifications - Fortama S \$75.000.00         No           MS14043         City of Anaheim          \$175.000.00         \$0.00         New Limited Access CNG Station         \$175.000.00         No           MS14	FY 2012	2-2014 Contracts								
MS14057         Los Angeles County MTA         11/7/2014         10/8/2019         \$1/250,000.00         \$0.00         Implement Various Signal Synchronization P         \$1,250,000.00         No           Total: 2         S32,000.0         \$0.00         Expansion of Existing CNG Infrastructure         \$32,000.00         No           ML14086         City of Jawithome         \$32,000.0         \$0.00         Electric Vehicle Charging Infrastructure         \$10,183.00         No           ML14086         City of South Pasadena         9/1/22014         1/1/1/2020         \$10,083.00         \$0.00         Construct New CNG Infrastructure         \$20,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         275,000.00         \$0.00         Vehicle Maint, Fac. Modifications - Fontana         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         3/3/2017         \$3/3/2022         \$150,000.00         \$0.00         Vehicle Maint, Fac. Modifications - Fontana         \$75,000.00         No           MS14048         Penske Truck Leasing Co., L.P.         \$3/3/2022         \$150,000.00         \$0.00         New Public Access CNS Station         \$150,000.00         No           MS14048         Prologis, L.P.         \$3/3/2014         \$1/1/22015         \$25,000.00         \$25,000         New Li	Open Cont	racts								
Total:         2 <td>ML14027</td> <td>County of Los Angeles Dept of Publi</td> <td>10/2/2015</td> <td>5/1/2023</td> <td>8/1/2028</td> <td>\$492,000.00</td> <td>\$0.00</td> <td>Construct New CNG Station in Canyon Coun</td> <td>\$492,000.00</td> <td>No</td>	ML14027	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	8/1/2028	\$492,000.00	\$0.00	Construct New CNG Station in Canyon Coun	\$492,000.00	No
Declined/Cancelled Contracts         S32,000,00         Expansion of Existing Col Infrastructure         S32,000,00         No           ML14068         City of South Pasadena         91/2014         10/11/2015         \$10,183,00         S0,00         Expension of Existing Col Infrastructure         \$30,000,00         No           ML14088         City of South Pasadena         31/2017         3/2/2017         3/2/2025         \$20,000,00         S0,00         Construct New CNG Infrastructure         \$20,000,00         No           MS14038         Penske Truck Leasing Co., L.P.          \$75,000,00         S0,00         Vehicle Maint. Fac. Modifications - La Min & \$75,000,00         No           MS14038         Penske Truck Leasing Co., L.P.          \$75,000,00         S0,00         Vehicle Maint. Fac. Modifications - La Min & \$75,000,00         No           MS14038         Penske Truck Leasing Co., L.P.          \$75,000,00         S0,00         Expension of Existing CNS Station         \$150,000,00         No           MS1408         Sing Gabriel Valley Towing I           \$150,000,00         S0,00         New Limited Access CNG Station         \$160,000,00         No           MS1408         Sing Gabriel Valley Towing I          \$12,000,00         \$20,000         New Limited Access CNG Station	MS14057	Los Angeles County MTA	11/7/2014	10/6/2019	10/31/2026	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
ML14083         City of Hawthome         S32,000.00         \$0.00         Expansion of Existing CNG Infrastructure         \$32,000.00         No           ML14080         City of South Pasadena         9/12/2014         10/11/2015         1/11/2020         \$10.183.00         \$0.00         Electric Vehicle Charging Infrastructure         \$200.000.00         No           ML14080         City of Beaumont         3/3/2017         3/2/2025         \$200,000.00         \$0.00         Vehicle Maint, Fac. Modifications - Sun Valle         \$375,000.00         No           MS14038         Penske Truck Leasing Co., L.P.          \$375,000.00         \$0.00         Vehicle Maint, Fac. Modifications - Fontana         \$375,000.00         No           MS14038         Penske Truck Leasing Co., L.P.          \$175,000.00         \$0.00         Vehicle Maint, Fac. Modifications - Fontana         \$375,000.00         No           MS14043         City of Anaheim          \$175,000.00         \$0.00         New Public Access CNG Station         \$150,000.00         No           MS14058         Parclogis, L.P.          \$150,000.00         \$0.00         New Luited Access CNG Station         \$150,000.00         No           MS14058         San Gabriel Valley Towing I          \$120,000.00         \$0.00	Total: 2				L L					
ML14068         City of South Pasadena         9/12/2014         10/11/2015         11/12/202         \$10.183.00         \$0.00         Electric Vehicle Charging Infrastructure         \$10.183.00         No           ML14069         City of Beaumont         3/3/2017         3/2/2025         \$200,000.00         \$0.00         Construct New CNG Infrastructure         \$200,000.00         No           MS14038         Penske Truck Leasing Co., L.P.          \$75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - La Miral         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.          \$175,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Fontana         \$75,000.00         No           MS14048         Penske Truck Leasing Co., I.P.         9/4/2015         \$13/2022         \$150,000.00         \$0.00         New Public Access CNG Station         \$150,000.00         No           MS14088         Penske Truck Leasing Co., Inc.         9/4/2015         \$130,000.00         \$0.00         New Limite Access CNG Station         \$150,000.00         No           MS14080         Serv-Wel Disposal          \$10/2021         \$130,000.00         \$0.00         New Limite Access CNG Station         \$100,000.00         No           ML14010         City of Cantedral City<	Declined/C	ancelled Contracts								
ML14069         City of Beaumont         3/3/2017         3/2/2025         \$200,000.00         \$0.00         Construct New CNG Infrastructure         \$200,000.00         No           MS14036         Penske Truck Leasing Co., L.P.         S75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Sun Valle         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         S75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Sun Valle         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         S75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Fontana         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         S175,000.00         \$0.00         New Public Access CNG Station         \$175,000.00         No           MS14085         Prologis, L.P.         S130,000.00         \$0.00         New Public Access CNG Station         \$100,000.00         No           MS14086         San Gabriel Valley Towing I         S130,000.00         \$0.00         New Public Access CNG Station         \$100,000.00         No           MS1401         City of Cathedral City         8/13/2014         10/12/2015         \$25,000.00         Street Sweeping Operations         \$0.00         Yes           ML14010         Ci	ML14063	City of Hawthorne				\$32,000.00	\$0.00	Expansion of Existng CNG Infrastructure	\$32,000.00	No
MS14035         Penske Truck Leasing Co., L.P.         No         \$75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Sun Valle         \$75,000.00         No           MS14036         Penske Truck Leasing Co., L.P.          \$75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Sun Valle         \$75,000.00         No           MS14048         Penske Truck Leasing Co., L.P.          \$75,000.00         \$0.00         Vehicle Maint. Fac. Modifications - Fontana         \$75,000.00         No           MS14047         American Honda Motor Co., Inc.         9/4/2015         \$8/32022         \$150,000.00         \$0.00         New Limited Access CNG Station         \$150,000.00         No           MS14085         Prologis, L.P.          \$160,000.00         \$0.00         New Limited Access CNG Station         \$150,000.00         No           MS14085         Serv-Wel Disposal          \$160,000.00         \$0.00         New Limited Access CNG Station         \$160,000.00         No           ML14010         City of Cathedral City         \$1/12/2014         10/12/2015         \$25,000.00         \$276,002.00         Street Sweeping Operations         \$0.00         Yes           ML14010         City of Palm Springs         6/1/3/2014         10/12/2021         \$1/1/2/2014	ML14068	City of South Pasadena	9/12/2014	10/11/2015	1/11/2020	\$10,183.00	\$0.00	Electric Vehicle Charging Infrastructure	\$10,183.00	No
MS14036         Penske Truck Leasing Co., L.P.         No         \$75,000.00         \$0.00         Vehicle Maint, Fac. Modifications - La Mirad         \$75,000.00         No           MS14038         Penske Truck Leasing Co., L.P.         S75,000.00         \$0.00         Vehicle Maint, Fac. Modifications - La Mirad         \$75,000.00         No           MS14038         City of Anaheim         S175,000.00         \$0.00         Expansion of Existing CNS Station         \$175,000.00         No           MS14048         Sna Gabriel Valley Towing I         S175,000.00         \$0.00         New Umited Access CNG Station         \$150,000.00         No           MS14085         Sna Gabriel Valley Towing I         S150,000.00         \$0.00         New Umited Access CNG Station         \$150,000.00         No           MS14091         Serv-Wel Disposal         S100,000.00         \$0.00         New Limited Access CNG Infrastructure         \$100,000.00         No           Tota::::::::::::::::::::::::::::::::::::	ML14069	City of Beaumont	3/3/2017	3/2/2025		\$200,000.00	\$0.00	Construct New CNG Infrastructure	\$200,000.00	No
MS14038         Penske Truck Leasing Co., L.P.         Image: Constraint of the state of the s	MS14035	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Sun Valle	\$75,000.00	No
MS14043         City of Anaheim         Image: City of Anaheim         S175,000.00         \$0.00         Expansion of Existing CNG Station         \$176,000.00         No           MS14078         American Honda Motor Co., Inc.         9/4/2015         8/3/2022         \$150,000.00         \$0.00         New Public Access CNG Station         \$150,000.00         No           MS14085         Prologis, L.P.         Image: Construct Station         \$100,000.00         \$0.00         New Public Access CNG Station         \$100,000.00         No           MS14081         Serv-Wel Disposal         Image: Construct Station         \$100,000.00         \$0.00         New Limited-Access CNG Infrastructure         \$100,000.00         No           MS14081         Serv-Wel Disposal         Image: Construct Station         \$101,2001         \$101,2001         \$100,000.00         \$25,000.00         Street Sweeping Operations         \$0.00         Yes           ML14010         City of Cathedral City         8/13/2014         1/12/2015         \$25,000.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,220.00         \$41,200.00         \$41,200.00         \$41,	MS14036	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - La Mirad	\$75,000.00	No
MS14078         American Honda Motor Co., Inc.         9/4/2015         8/3/2022         \$150,000.00         \$0.00         New Public Access CNG Station         \$150,000.00         No           MS14085         Prologis, L.P.          \$150,000.00         \$0.00         New Public Access CNG Station         \$150,000.00         No           MS14086         San Gabriel Valley Towing I          \$150,000.00         \$0.00         New Public Access CNG Station         \$150,000.00         No           MS14091         Serv-Wel Disposal          \$100,000.00         \$0.00         New Fublic Access CNG Station         \$150,000.00         No           Total: 11           \$150,000.00         \$75,627.00         Street Sweeping Operations         \$0.00         Yes           ML14011         City of Palm Springs         6/13/2014         1/12/2015         \$25,000.00         Street Sweeping Operations         \$0.00         Yes           ML14012         City of Palm Springs         6/13/2014         1/12/2019         \$41,220.00         \$41,220.00         \$41,220.00         \$100,000.00         Yes           ML14012         City of Torrance         9/5/2014         10/12/2021         \$41,220.00         \$25,000.00         Street Sweeping Operations         \$0.00         Yes<	MS14038	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Fontana	\$75,000.00	No
MS14085         Prologis, L.P.         Image: Construct of the system of	MS14043	City of Anaheim				\$175,000.00	\$0.00	Expansion of Existing CNG Station	\$175,000.00	No
MS14086         San Gabriel Valley Towing I         Image: Construct of the synthesis of the synthesynthesis of the synthesynthesis of the synthesis of	MS14078	American Honda Motor Co., Inc.	9/4/2015	8/3/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14091         Serv-Wel Disposal         Image: Construct of the synthesis of the synthesynthesis of the synthesis of	MS14085	Prologis, L.P.				\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
Total: 11           Closed Contracts           ML14010         City of Cathedral City         8/13/2014         10/12/2015         \$25,000.00         \$25,000.00         \$treet Sweeping Operations         \$0.00         Yes           ML14011         City of Palm Springs         6/13/2014         11/12/2016         \$79,000.00         \$78,627.00         Bicycle Racks, Bicycle Outreach & Educatio         \$373.00         Yes           ML14012         City of Santa Ana - Public Works Ag         2/13/2015         10/12/2021         \$41,220.00         \$41,220.00         EV Charging and 1 H.D. CNG Vehicle         \$0.00         Yes           ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2015         \$250,000.00         \$250,000.00         Street Sweeping Operations         \$0.00         Yes           ML14016         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$100.00         Yes           ML14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML14022         County of Los Angeles Department o         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas V	MS14086	San Gabriel Valley Towing I				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
Closed Contracts           ML14010         City of Cathedral City         8/13/2014         10/12/2015         \$25,000.00         \$25,000.00         Street Sweeping Operations         \$0.00         Yes           ML14011         City of Palm Springs         6/13/2014         1/12/2016         \$79,000.00         \$78,627.00         Bicycle Racks, Bicycle Outreach & Educatio         \$373.00         Yes           ML14012         City of Santa Ana - Public Works Ag         2/13/2015         10/12/2021         10/12/2022         \$41,220.00         \$V Charging and 1 H.D. CNG Vehicle         \$0.00         Yes           ML14014         City of Torrance         9/5/2014         12/4/2019         \$\$56,000.00         \$Veharging Infrastructure         \$0.00         Yes           ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2015         \$\$250,000.00         \$250,000.00         Street Sweeping Operations         \$0.00         Yes           ML14019         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$380,000.00         Purchase 2 H.D. Vehicles, Expansion of Exi         \$0.00         Yes           ML14012         County of Los Angeles Department         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas Vehicles         \$0.00	MS14091	Serv-Wel Disposal				\$100,000.00	\$0.00	New Limited-Access CNG Infrastructure	\$100,000.00	No
ML14010         City of Cathedral City         8/13/2014         10/12/2015         \$25,000.00         Street Sweeping Operations         \$0.00         Yes           ML14011         City of Palm Springs         6/13/2014         1/12/2016         \$79,000.00         \$78,627.00         Bicycle Racks, Bicycle Outreach & Educatio         \$373.00         Yes           ML14012         City of Santa Ana - Public Works Ag         2/13/2015         10/12/2021         10/12/2022         \$41,220.00         \$41,220.00         EV Charging and 1 H.D. CNG Vehicle         \$0.00         Yes           ML14014         City of Torrance         9/5/2014         12/4/2019         \$56,000.00         \$250,000.00         EV Charging Infrastructure         \$0.00         Yes           ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2014         \$250,000.00         \$250,000.00         Eve Charging Infrastructure         \$0.00         Yes           ML14019         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         Street Sweeping Operations         \$0.00         Yes           ML14012         County of Los Angeles Departmento         10/2/2015         9/1/2021         \$230,000.00         \$2111,517.48         EV Charging, Bicycle Racks, Bicycle Locks         \$0.00         Yes           ML14024 <td>Total: 11</td> <td></td> <td></td> <td></td> <td>1 1</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Total: 11				1 1					
ML14011         City of Palm Springs         6/13/2014         1/12/2016         \$79,000.00         \$78,627.00         Bicycle Racks, Bicycle Outreach & Educatio         \$373.00         Yes           ML14012         City of Santa Ana - Public Works Ag         2/13/2015         10/12/2021         10/12/2022         \$41,220.00         \$41,220.00         EV Charging and 1 H.D. CNG Vehicle         \$0.00         Yes           ML14014         City of Torrance         9/5/2014         12/4/2019         \$56,000.00         \$250,000.00         EV Charging Infrastructure         \$0.00         Yes           ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2015         \$250,000.00         \$250,000.00         Street Sweeping Operations         \$0.00         Yes           ML14016         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$380,000.00         Purchase 2 H.D. Vehicles, Expansion of Exi         \$0.00         Yes           ML14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML14022         County of Los Angeles Departmento         10/2/2015         5/1/2022         \$270,000.00         Waithenance Fac. Modifications-Westcheste         \$0.00	Closed Co	ntracts								
ML14012         City of Santa Ana - Public Works Ag         2/13/2015         10/12/2021         10/12/2022         \$41,220.00         EV Charging and 1 H.D. CNG Vehicle         \$0.00         Yes           ML14014         City of Torrance         9/5/2014         12/4/2019         \$56,000.00         \$26,000.00         EV Charging and 1 H.D. CNG Vehicle         \$0.00         Yes           ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2015         \$250,000.00         \$250,000.00         Street Sweeping Operations         \$0.00         Yes           ML14016         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$250,000.00         Purchase 2 H.D. Vehicles, Expansion of Exi         \$0.00         Yes           ML14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML14022         County of Los Angeles Department o         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas Vehicles         \$0.00         Yes           ML14023         County of Los Angeles Department o         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         Maintenance Fac. Modifications-Baldwin Par         \$0	ML14010	City of Cathedral City	8/13/2014	10/12/2015		\$25,000.00	\$25,000.00	Street Sweeping Operations	\$0.00	Yes
ML14014         City of Torrance         9/5/2014         12/4/2019         \$56,000.00         \$56,000.00         EV Charging Infrastructure         \$0.00         Yes           ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2015         \$250,000.00         \$treet Sweeping Operations         \$0.00         Yes           ML14016         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$treet Sweeping Operations         \$0.00         Yes           ML14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML1402         County of Los Angeles Departmento         10/2/2015         5/1/2022         \$270,000.00         \$220,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML1402         County of Los Angeles Departmento         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML1402         County of Los Angeles Departmento         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14026 <t< td=""><td>ML14011</td><td>City of Palm Springs</td><td>6/13/2014</td><td>1/12/2016</td><td></td><td>\$79,000.00</td><td>\$78,627.00</td><td>Bicycle Racks, Bicycle Outreach &amp; Educatio</td><td>\$373.00</td><td>Yes</td></t<>	ML14011	City of Palm Springs	6/13/2014	1/12/2016		\$79,000.00	\$78,627.00	Bicycle Racks, Bicycle Outreach & Educatio	\$373.00	Yes
ML14015         Coachella Valley Association of Gov         6/6/2014         9/5/2015         \$250,000.00         \$250,000.00         Street Sweeping Operations         \$0.00         Yes           ML14016         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$380,000.00         Purchase 2 H.D. Vehicles, Expansion of Exi         \$0.00         Yes           ML14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,518.00         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML14022         County of Los Angeles Department o         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas Vehicles         \$0.00         Yes           ML14023         County of Los Angeles Department o         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML14024         County of Los Angeles Department o         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14026         County of Los Angeles Dept of Publi         10/2/2015         5/1/2023         \$1/1/2024         \$300,000.00         Construct	ML14012	City of Santa Ana - Public Works Ag	2/13/2015	10/12/2021	10/12/2022	\$41,220.00	\$41,220.00	EV Charging and 1 H.D. CNG Vehicle	\$0.00	Yes
ML14016         City of Anaheim         4/3/2015         9/2/2021         \$380,000.00         \$380,000.00         Purchase 2 H.D. Vehicles, Expansion of Exi         \$0.00         Yes           ML14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,518.00         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML14022         County of Los Angeles Department o         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas Vehicles         \$0.00         Yes           ML14023         County of Los Angeles Department o         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML14024         County of Los Angeles Department o         10/2/2015         9/1/2017         9/1/2021         \$230,000.00         Maintenance Fac. Modifications-Baldwin Par         \$0.00         Yes           ML14026         County of Los Angeles Dept of Publi         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14028         City of Fullerton         9/5/2014         1/4/2022         \$126,950.00         State,950.00         Expansion of	ML14014	City of Torrance	9/5/2014	12/4/2019		\$56,000.00	\$56,000.00	EV Charging Infrastructure	\$0.00	Yes
L14019         City of Corona Public Works         12/5/2014         6/4/2020         3/6/2023         \$111,517.18         EV Charging, Bicycle Racks, Bicycle Locker         \$0.82         Yes           ML14022         County of Los Angeles Department o         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas Vehicles         \$0.00         Yes           ML14023         County of Los Angeles Department o         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML14024         County of Los Angeles Department o         10/2/2015         9/1/2017         9/1/2021         \$230,000.00         \$230,000.00         Maintenance Fac. Modifications-Baldwin Par         \$0.00         Yes           ML14025         County of Los Angeles Department o         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14026         County of Los Angeles Dept of Publi         10/2/2015         5/1/2023         5/1/2024         \$300,000.00         Construct New CNG Station in Castaic         \$0.00         Yes           ML14028         City of Fullerton         9/5/2014         1/4/2022         \$12	ML14015	Coachella Valley Association of Gov	6/6/2014	9/5/2015		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML14022         County of Los Angeles Department o         10/2/2015         5/1/2022         \$270,000.00         \$270,000.00         Purchase 9 H.D. Nat. Gas Vehicles         \$0.00         Yes           ML14023         County of Los Angeles Department o         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML14024         County of Los Angeles Department o         10/2/2015         9/1/2017         9/1/2021         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML14024         County of Los Angeles Department o         10/2/2015         9/1/2017         9/1/2021         \$230,000.00         Maintenance Fac. Modifications-Baldwin Par         \$0.00         Yes           ML14025         County of Los Angeles Dept of Publi         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14026         County of Los Angeles Dept of Publi         10/2/2015         5/1/2023         \$/1/2024         \$300,000.00         Construct New CNG Station in Castaic         \$0.00         Yes           ML14028         City of Fullerton         9/5/2014         1/4/2022         \$126,950.00         \$71,056.78	ML14016	City of Anaheim	4/3/2015	9/2/2021		\$380,000.00	\$380,000.00	Purchase 2 H.D. Vehicles, Expansion of Exi	\$0.00	Yes
ML14023         County of Los Angeles Department o         10/2/2015         9/1/2017         3/1/2021         \$230,000.00         \$230,000.00         Maintenance Fac. Modifications-Westcheste         \$0.00         Yes           ML14024         County of Los Angeles Department o         10/2/2015         9/1/2017         9/1/2021         \$230,000.00         \$230,000.00         Maintenance Fac. Modifications-Baldwin Par         \$0.00         Yes           ML14025         County of Los Angeles Dept of Publi         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         \$0.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14026         County of Los Angeles Dept of Publi         10/2/2015         5/1/2023         5/1/2024         \$300,000.00         Construct New CNG Station in Castaic         \$0.00         Yes           ML14026         County of Fullerton         9/5/2014         1/4/2022         \$126,950.00         \$126,950.00         Expansion of Existing CNG Infrastructure         \$0.00         Yes           ML14029         City of Irvine         7/11/2014         6/10/2017         \$90,500.00         \$71,056.78         Bicycle Trail Improvements         \$19,443.22         Yes           ML14030         County of Los Angeles Internal Servi         1/9/2015         3/8/2018         7/30/2021	ML14019	City of Corona Public Works	12/5/2014	6/4/2020	3/6/2023	\$111,518.00	\$111,517.18	EV Charging, Bicycle Racks, Bicycle Locker	\$0.82	Yes
ML14024County of Los Angeles Department o10/2/20159/1/20179/1/2021\$230,000.00\$230,000.00Maintenance Fac. Modifications-Baldwin Par\$0.00YesML14025County of Los Angeles Dept of Publi10/2/20157/1/20187/1/2024\$300,000.00\$300,000.00Construct New CNG Station in Malibu\$0.00YesML14026County of Los Angeles Dept of Publi10/2/20155/1/20235/1/2024\$300,000.00\$300,000.00Construct New CNG Station in Castaic\$0.00YesML14028City of Fullerton9/5/20141/4/2022\$126,950.00\$126,950.00Expansion of Exisiting CNG Infrastructure\$0.00YesML14029City of Irvine7/11/20146/10/2017\$90,500.00\$71,056.78Bicycle Trail Improvements\$19,443.22YesML14030County of Los Angeles Internal Servi1/9/20153/8/20187/30/2021\$425,000.00\$216,898.02Bicycle Racks, Outreach & Education\$208,101.98YesML14031Riverside County Waste Manageme6/13/201412/12/2020\$90,000.00\$90,000.00Purchase 3 H.D. CNG Vehicles\$0.00Yes	ML14022	County of Los Angeles Department o	10/2/2015	5/1/2022		\$270,000.00	\$270,000.00	Purchase 9 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14025         County of Los Angeles Dept of Publi         10/2/2015         7/1/2018         7/1/2024         \$300,000.00         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14026         County of Los Angeles Dept of Publi         10/2/2015         5/1/2023         5/1/2024         \$300,000.00         \$300,000.00         Construct New CNG Station in Malibu         \$0.00         Yes           ML14028         City of Fullerton         9/5/2014         1/4/2022         \$126,950.00         \$126,950.00         Expansion of Existing CNG Infrastructure         \$0.00         Yes           ML14029         City of Irvine         7/1/2014         6/10/2017         \$90,500.00         \$71,056.78         Bicycle Trail Improvements         \$19,443.22         Yes           ML14030         County of Los Angeles Internal Servi         1/9/2015         3/8/2018         7/30/2021         \$425,000.00         \$216,898.02         Bicycle Racks, Outreach & Education         \$208,101.98         Yes           ML14031         Riverside County Waste Manageme         6/13/2014         12/12/2020         \$90,000.00         \$90,000.00         Purchase 3 H.D. CNG Vehicles         \$0.00         Yes	ML14023	County of Los Angeles Department o	10/2/2015	9/1/2017	3/1/2021	\$230,000.00	\$230,000.00	Maintenance Fac. Modifications-Westcheste	\$0.00	Yes
ML14026         County of Los Angeles Dept of Publi         10/2/2015         5/1/2023         5/1/2024         \$300,000.00         \$300,000.00         Construct New CNG Station in Castaic         \$0.00         Yes           ML14028         City of Fullerton         9/5/2014         1/4/2022         \$126,950.00         \$126,950.00         Expansion of Exisiting CNG Infrastructure         \$0.00         Yes           ML14029         City of Irvine         7/11/2014         6/10/2017         \$90,500.00         \$71,056.78         Bicycle Trail Improvements         \$19,443.22         Yes           ML14030         County of Los Angeles Internal Servi         1/9/2015         3/8/2018         7/30/2021         \$425,000.00         \$216,898.02         Bicycle Racks, Outreach & Education         \$208,101.98         Yes           ML14031         Riverside County Waste Manageme         6/13/2014         12/12/2020         \$90,000.00         \$90,000.00         Purchase 3 H.D. CNG Vehicles         \$0.00         Yes	ML14024	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2021	\$230,000.00	\$230,000.00	Maintenance Fac. Modifications-Baldwin Par	\$0.00	Yes
ML14028         City of Fullerton         9/5/2014         1/4/2022         \$126,950.00         \$126,950.00         Expansion of Exisiting CNG Infrastructure         \$0.00         Yes           ML14029         City of Irvine         7/11/2014         6/10/2017         \$90,500.00         \$71,056.78         Bicycle Trail Improvements         \$19,443.22         Yes           ML14030         County of Los Angeles Internal Servi         1/9/2015         3/8/2018         7/30/2021         \$425,000.00         \$216,898.02         Bicycle Racks, Outreach & Education         \$208,101.98         Yes           ML14031         Riverside County Waste Manageme         6/13/2014         12/12/2020         \$90,000.00         \$90,000.00         Purchase 3 H.D. CNG Vehicles         \$0.00         Yes	ML14025	County of Los Angeles Dept of Publi	10/2/2015	7/1/2018	7/1/2024	\$300,000.00	\$300,000.00	Construct New CNG Station in Malibu	\$0.00	Yes
ML14029         City of Irvine         7/11/2014         6/10/2017         \$90,500.00         \$71,056.78         Bicycle Trail Improvements         \$19,443.22         Yes           ML14030         County of Los Angeles Internal Servi         1/9/2015         3/8/2018         7/30/2021         \$425,000.00         \$216,898.02         Bicycle Racks, Outreach & Education         \$208,101.98         Yes           ML14031         Riverside County Waste Manageme         6/13/2014         12/12/2020         \$90,000.00         \$90,000.00         Purchase 3 H.D. CNG Vehicles         \$0.00         Yes	ML14026	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	5/1/2024	\$300,000.00	\$300,000.00	Construct New CNG Station in Castaic	\$0.00	Yes
ML14030         County of Los Angeles Internal Servi         1/9/2015         3/8/2018         7/30/2021         \$425,000.00         \$216,898.02         Bicycle Racks, Outreach & Education         \$208,101.98         Yes           ML14031         Riverside County Waste Manageme         6/13/2014         12/12/2020         \$90,000.00         \$90,000.00         Purchase 3 H.D. CNG Vehicles         \$0.00         Yes	ML14028	City of Fullerton	9/5/2014	1/4/2022		\$126,950.00	\$126,950.00	Expansion of Exisiting CNG Infrastructure	\$0.00	Yes
ML14031         Riverside County Waste Manageme         6/13/2014         12/12/2020         \$90,000.00         \$90,000.00         Purchase 3 H.D. CNG Vehicles         \$0.00         Yes	ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$71,056.78	Bicycle Trail Improvements	\$19,443.22	Yes
	ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	7/30/2021	\$425,000.00	\$216,898.02	Bicycle Racks, Outreach & Education	\$208,101.98	Yes
ML14032 City of Rancho Cucamonga 1/9/2015 1/8/2022 \$113,990.00 \$104,350.63 Expansion of Existing CNG Infras., Bicycle L \$9,639.37 Yes	ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		\$90,000.00	\$90,000.00	Purchase 3 H.D. CNG Vehicles	\$0.00	Yes
	ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		\$113,990.00	\$104,350.63	Expansion of Existing CNG Infras., Bicycle L	\$9,639.37	Yes

Cont.#	Contractor	Stort Data	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing
ML14033	Contractor City of Irvine	Start Date 7/11/2014	2/10/2021	2/10/2022	\$60,000.00	\$60,000.00	Project Description Purchase 2 H.D. CNG Vehicles	\$0.00	Complete? Yes
ML14033	,	9/5/2014	5/4/2021	2/10/2022	\$56,700.00	\$56,700.00		\$0.00	Yes
ML14034 ML14049	City of Lake Elsinore City of Moreno Valley	7/11/2014	3/10/2021		\$105,000.00	\$101,976.09	EV Charging Stations One HD Nat Gas Vehicle, EV Charging, Bicy	\$3,023.91	Yes
ML14049 ML14051	City of Brea	9/5/2014	1/4/2017	7/4/2018	\$450,000.00	\$450,000.00		\$3,023.91	Yes
	,		1				Installation of Bicycle Trail	<b>•</b> • • • •	
ML14054	City of Torrance	11/14/2014	4/13/2017	7/13/2017	\$350,000.00	\$319,908.80	Upgrade Maintenance Facility	\$30,091.20	Yes
ML14055	City of Highland	10/10/2014	3/9/2018	3/9/2019	\$500,000.00	\$489,385.24	Bicycle Lanes and Outreach	\$10,614.76	Yes
ML14056	City of Redlands	9/5/2014	5/4/2016	5/4/2018	\$125,000.00	\$125,000.00	Bicycle Lanes	\$0.00	Yes
ML14061	City of La Habra	3/11/2016	3/10/2022		\$41,600.00	\$41,270.49	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$329.51	Yes
ML14062	City of San Fernando	3/27/2015	5/26/2021	10/31/2023	\$325,679.00	\$325,679.00	Expand Existing CNG Fueling Station	\$0.00	Yes
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	\$60,000.00	\$60,000.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
ML14065	City of Orange	9/5/2014	8/4/2015		\$10,000.00	\$10,000.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14067	City of Duarte	12/4/2015	1/3/2023	6/3/2024	\$60,000.00	\$60,000.00	Purchase Two Electric Buses	\$0.00	Yes
ML14070	City of Rancho Cucamonga	9/3/2016	12/2/2018		\$365,245.00	\$326,922.25	Bicycle Trail Improvements	\$38,322.75	Yes
ML14071	City of Manhattan Beach	1/9/2015	11/8/2018		\$22,485.00	\$22,485.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14072	City of Cathedral City	8/13/2014	1/12/2021	7/12/2022	\$41,000.00	\$41,000.00	Install Bicycle Racks & Implement Bicycle E	\$0.00	Yes
ML14094	City of Yucaipa	6/9/2017	6/8/2018		\$84,795.00	\$84,795.00	Installation of Bicycle Lanes	\$0.00	Yes
ML14095	City of South Pasadena	1/10/2019	7/9/2019		\$142,096.00	\$134,182.09	Bicycle Trail Improvements	\$7,913.91	Yes
ML14096	County of Los Angeles Dept of Pub	5/3/2019	12/2/2019	3/2/2020	\$74,186.00	\$74,186.00	San Gabriel BikeTrail Underpass Improveme	\$0.00	Yes
ML14097	County of Los Angeles Internal Servi	9/6/2019	9/5/2020	9/5/2021	\$104,400.00	\$104,400.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		\$1,216,637.00	\$1,199,512.68	Clean Fuel Transit Service to Dodger Stadiu	\$17,124.32	Yes
MS14002	Orange County Transportation Autho	9/6/2013	4/30/2014		\$576,833.00	\$576,833.00	Clean Fuel Transit Service to Orange Count	\$0.00	Yes
MS14003	Orange County Transportation Autho	8/1/2013	4/30/2014	10/30/2014	\$194,235.00	\$184,523.00	Implement Metrolink Service to Angel Stadiu	\$9,712.00	Yes
MS14004	Orange County Transportation Autho	9/24/2013	4/30/2014		\$36,800.00	\$35,485.23	Implement Express Bus Service to Solar De	\$1,314.77	Yes
MS14005	Transit Systems Unlimited, Inc.	4/11/2014	2/28/2016		\$515,200.00	\$511,520.00	Provide Expanded Shuttle Service to Hollyw	\$3,680.00	Yes
MS14007	Orange County Transportation Autho	6/6/2014	4/30/2015		\$208,520.00	\$189,622.94	Implement Special Metrolink Service to Ang	\$18,897.06	Yes
MS14008	Orange County Transportation Autho	8/13/2014	5/31/2015		\$601,187.00	\$601,187.00	Implement Clean Fuel Bus Service to Orang	\$0.00	Yes
MS14009	A-Z Bus Sales, Inc.	1/17/2014	12/31/2014	3/31/2015	\$388,000.00	\$388,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS14037	Penske Truck Leasing Co., L.P.	4/7/2017	6/6/2020		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Carson	\$0.00	Yes
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Irvine	\$0.00	Yes
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Santa An	\$0.00	Yes
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		\$175,000.00	\$175,000.00	Limited-Access CNG Station, Vehicle Maint.	\$0.00	Yes
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		\$150,000.00	\$150,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS14044	TIMCO CNG Fund I, LLC	5/2/2014	11/1/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Santa A	\$0.00	Yes
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Inglewoo	\$0.00	Yes
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	11/14/2021	\$150,000.00	\$150,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14047	Southern California Regional Rail Au	3/7/2014	9/30/2014		\$49,203.00	\$32,067.04	Special Metrolink Service to Autoclub Speed	\$17,135.96	Yes
MS14048	BusWest	3/14/2014	12/31/2014	5/31/2015	\$940,850.00	\$847,850.00	Alternative Fuel School Bus Incentive Progra	\$93,000.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14052	Arcadia Unified School District	6/13/2014	10/12/2020		\$78,000.00	\$78,000.00	Expansion of an Existing CNG Fueling Statio	\$0.00	Yes
MS14053	Upland Unified School District	1/9/2015	7/8/2021		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14058	Orange County Transportation Autho	11/7/2014	4/6/2016	4/6/2017	\$1,250,000.00	\$1,250,000.00	Implement Various Signal Synchronization P	\$0.00	Yes
MS14059	Riverside County Transportation Co	9/5/2014	3/4/2018	7/4/2023	\$1,250,000.00	\$1,209,969.08	Implement Various Signal Synchronization P	\$40,030.92	No
MS14072	San Bernardino County Transportatio	3/27/2015	3/26/2018	3/26/2024	\$1,237,500.00	\$1,148,376.17	Implement Various Signal Synchronization P	\$89,123.83	No
MS14073	Anaheim Transportation Network	1/9/2015	4/30/2017		\$221,312.00	\$221,312.00	Anaheim Resort Circulator Service	\$0.00	Yes
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		\$250,000.00	\$250,000.00	Limited-Access CNG Station & Facility Modif	\$0.00	Yes
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		\$293,442.00	\$293,442.00	Expansion of Existing CNG Infrastructure/Ma	\$0.00	Yes
MS14076	Rialto Unified School District	6/17/2015	2/16/2022	6/25/2023	\$225,000.00	\$225,000.00	New Public Access CNG Station	\$0.00	Yes
MS14077	County Sanitation Districts of L.A. Co	3/6/2015	5/5/2021		\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS14080	CR&R Incorporated	6/1/2015	8/31/2021	8/31/2022	\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure/Ma	\$0.00	Yes
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		\$175,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure/Ma	\$75,000.00	Yes
MS14082	Grand Central Recycling & Transfer	12/4/2015	3/3/2023	3/3/2024	\$150,000.00	\$150,000.00	Construct New Public Access CNG Station	\$0.00	Yes
MS14083	Hacienda La Puente Unified School	7/10/2015	3/9/2022	6/9/2023	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		\$239,645.00	\$195,377.88	Implement Special Metrolink Service to Ang	\$44,267.12	Yes
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		\$79,660.00	\$66,351.44	Special Metrolink Service to Autoclub Speed	\$13,308.56	Yes
MS14089	Top Shelf Consulting, LLC	1/18/2017	8/4/2016	3/31/2017	\$200,000.00	\$200,000.00	Enhanced Fleet Modernization Program	\$0.00	Yes
MS14090	City of Monterey Park	5/7/2015	5/6/2021		\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
Total: 73									
Closed/Inc	omplete Contracts								
ML14020	County of Los Angeles Dept of Pub	8/13/2014	1/12/2018		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
ML14021	Riverside County Regional Park and	7/24/2014	12/23/2016	9/30/2024	\$250,000.00	\$0.00	Bicycle Trail Improvements	\$250,000.00	No
ML14050	City of Yucaipa	7/11/2014	9/10/2015	7/1/2016	\$84,795.00	\$0.00	Installation of Bicycle Lanes	\$84,795.00	No
ML14060	County of Los Angeles Internal Servi	10/6/2017	1/5/2019		\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
ML14066	City of South Pasadena	9/12/2014	7/11/2016	2/11/2018	\$142,096.00	\$0.00	Bicycle Trail Improvements	\$142,096.00	No
ML14093	County of Los Angeles Dept of Pub	8/14/2015	1/13/2019		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
MS14092	West Covina Unified School District	9/3/2016	12/2/2022		\$124,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$124,000.00	No
Total: 7									
Open/Com	plete Contracts								
ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		\$400,000.00	\$400,000.00	Purchase 14 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14018	City of Los Angeles Dept of General	3/6/2015	9/5/2021	2/5/2026	\$810,000.00	\$810,000.00	Purchase 27 H.D. Nat. Gas Vehicles	\$0.00	Yes
				1			i		

\$100,000.00

\$100,000.00

New Limited Access CNG Station

\$0.00

Yes

MS14079 Total: 3

Waste Resources, Inc.

9/14/2016

8/13/2022

10/13/2024

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
EV 201	4-2016 Contracts								
Open Cont									
ML16025	City of South Pasadena	6/22/2016	4/21/2023	2/21/2025	\$130,000.00	\$0.00	Expand Existing CNG Infrastructure	\$130,000.00	No
ML16039	City of Torrance Transit Department	1/6/2017	9/5/2022	3/27/2026	\$32,000.00	\$27,391.57	Install Eight Level II EV Chargers	\$4,608.43	Yes
ML16047	City of Fontana	1/6/2017	8/5/2019	8/5/2025	\$500,000.00	\$0.00	Enhance an Existing Class 1 Bikeway	\$500,000.00	No
ML16075	City of San Fernando	10/27/2016	2/26/2019	12/26/2024	\$354,000.00	\$0.00	Install a Class 1 Bikeway	\$354,000.00	No
ML16077	City of Rialto	5/3/2018	10/2/2021	2/2/2026	\$463,216.00	\$218,708.00	Pedestrian Access Improvements, Bicycle L	\$244,508.00	No
MS16121	Long Beach Transit	11/3/2017	4/2/2024	11/30/2028	\$600,000.00	\$600,000.00	Repower 39 and Purchase 1 New Transit Bu	\$0.00	No
Total: 6	Long Deach Hansie	11/3/2017	4/2/2024	11/30/2020	\$000,000.00	\$000,000.00	Repower 55 and 1 drenase 1 frew fransie Du	φ0.00	NO
	ecution Contracts								
ML16127	City of Yucaipa				\$174,420.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$174,420.00	No
Total: 1	Only of Tucalpa				ψ174,420.00	ψ0.00		ψ17 <del>4</del> ,420.00	110
ML16014	ancelled Contracts City of Dana Point	1		1	\$153,818.00	\$0.00	Extend an Existing Class 1 Bikeway	\$153,818.00	No
ML16065	City of Temple City				\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16065	City of South El Monte				\$73,329.00	\$0.00	Implement a "Open Streets" Event	\$73,329.00	No
ML16074	City of La Verne	7/22/2016	1/21/2023		\$365,000.00	\$0.00	Install CNG Fueling Station	\$365,000.00	No
MS16043	LBA Realty Company LLC	1122/2010	1/21/2023		\$100,000.00	\$0.00	Install Limited-Access CNG Station	\$100,000.00	No
MS16043 MS16080	Riverside County Transportation Co				\$1,200,000.00	\$0.00	Passenger Rail Service for Coachella and St	\$1,200,000.00	No
MS16098	Long Beach Transit				\$198,957.00	\$0.00	Provide Special Bus Service to Stub Hub Ce	\$198,957.00	No
MS16090	City of Perris				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16104	City of Lawndale	3/1/2019	11/30/2025		\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16107	Athens Services	3/1/2019	11/30/2023		\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16108	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public-Access CNG Station	\$150,000.00	No
MS16109	Sanitation Districts of Los Angeles C				\$275,000.00	\$0.00	Expansion of an Existing L/CNG Station	\$275,000.00	No
MS16103	VNG 925 Lakeview Avenue, LLC				\$150,000.00	\$0.00	Construct Public Access CNG Station in Pla	\$150,000.00	No
Total: 13	VINO 525 Eakeview Avenue, EEO				\$150,000.00	ψ0.00	Construct 1 ublic Access CIVC Clation in 1 la	\$150,000.00	NO
Closed Co									
ML16006	City of Cathedral City	4/27/2016	4/26/2022	4/26/2023	\$25,000.00	\$25,000.00	Bicycle Outreach	\$0.00	Yes
ML16007	City of Culver City Transportation De	10/6/2015	4/5/2022	4/20/2023	\$246,000.00	\$246,000.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	\$0.00	Yes
ML16007	City of Fountain Valley	10/6/2015	2/5/2023	5/5/2019	\$248,000.00	\$246,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16011	City of Claremont	10/6/2015	6/5/2022	5/5/2019	\$40,100.00	\$40,100.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16012	City of Carson	1/15/2015	10/14/2022		\$90,000.00	\$90,000.00	Purchase 2 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16012	City of Yorba Linda	3/4/2016	11/3/2017		\$80,000.00	\$85,000.00	Install Bicycle Lanes	\$0.00	Yes
ML16015 ML16016	,	2/5/2016	11/3/2017		\$630,000.00	\$85,000.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16018	City of Los Angeles Dept of General City of Hermosa Beach	10/7/2016	1/6/2022		\$830,000.00	\$630,000.00	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$0.00	Yes
		10/7/2010	1/0/2023		φ∠9,3∠0.00	φ23,100.44	FUICHASE 2 W.D. INAL GAS VEHICLES, DICYCLE	JC.101.30	res

Comt #	Construction	Ctart Data	Original End Date	Amended End Date	Contract Value	Domitted	Designt Description	Award Balance	Billing
Cont.#	Contractor	Start Date		Ena Date		Remitted	Project Description		Complete?
ML16019	City of Los Angeles, Dept of General	1/25/2017	3/24/2023	0/4/0040	\$102,955.00	\$102,955.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16020	City of Pomona	4/1/2016	2/1/2018	8/1/2018	\$440,000.00	\$440,000.00	Install Road Surface Bicycle Detection Syste	\$0.00	Yes
ML16023	City of Banning	12/11/2015	12/10/2021		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16024	City of Azusa	4/27/2016	2/26/2022		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16026	City of Downey	5/6/2016	9/5/2017		\$40,000.00	\$40,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16027	City of Whittier	1/8/2016	11/7/2022		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16028	City of Azusa	9/9/2016	4/8/2018		\$25,000.00	\$25,000.00	Enhance Existing Class 1 Bikeway	\$0.00	Yes
ML16031	City of Cathedral City	12/19/2015	2/18/2017		\$25,000.00	\$25,000.00	Street Sweeping in Coachella Valley	\$0.00	Yes
ML16032	City of Azusa	9/9/2016	4/8/2019	4/8/2021	\$474,925.00	\$474,925.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		\$250,000.00	\$250,000.00	Street Sweeping Operations in Coachella Va	\$0.00	Yes
ML16034	City of Riverside	3/11/2016	10/10/2018	7/10/2020	\$500,000.00	\$500,000.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16036	City of Brea	3/4/2016	12/3/2018		\$500,000.00	\$500,000.00	Install a Class 1 Bikeway	\$0.00	Yes
ML16037	City of Rancho Cucamonga	2/5/2016	11/4/2022		\$30,000.00	\$30,000.00	Purchase One Heavy-Duty Natural Gas Vehi	\$0.00	Yes
ML16038	City of Palm Springs	4/1/2016	7/31/2022	9/30/2022	\$170,000.00	\$60,000.00	Install Bicycle Lanes & Purchase 2 Heavy-D	\$110,000.00	Yes
ML16041	City of Moreno Valley	9/3/2016	1/2/2021	4/2/2024	\$20,000.00	\$20,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16042	City of San Dimas	4/1/2016	12/31/2019	12/31/2021	\$55,000.00	\$55,000.00	Install EV Charging Infrastructure	\$0.00	No
ML16045	City of Anaheim	6/22/2016	8/21/2019		\$275,000.00	\$255,595.08	Maintenance Facility Modifications	\$19,404.92	Yes
ML16046	City of El Monte	4/1/2016	5/31/2021	5/31/2023	\$20,160.00	\$14,637.50	Install EV Charging Infrastructure	\$5,522.50	Yes
ML16049	City of Buena Park	4/1/2016	11/30/2018		\$429,262.00	\$429,262.00	Installation of a Class 1 Bikeway	\$0.00	Yes
ML16050	City of Westminster	5/6/2016	7/5/2020	5/5/2022	\$115,000.00	\$93,925.19	Installation of EV Charging Infrastructure	\$21,074.81	Yes
ML16051	City of South Pasadena	2/12/2016	1/11/2017	12/11/2017	\$320,000.00	\$258,691.25	Implement "Open Streets" Event with Variou	\$61,308.75	Yes
ML16052	City of Rancho Cucamonga	9/3/2016	11/2/2019	3/31/2021	\$315,576.00	\$305,576.00	Install Two Class 1 Bikeways	\$10,000.00	Yes
ML16053	City of Claremont	3/11/2016	7/10/2018	12/10/2020	\$498,750.00	\$498,750.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16054	City of Yucaipa	3/26/2016	7/26/2018	10/25/2019	\$120,000.00	\$120,000.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16055	City of Ontario	5/6/2016	5/5/2022		\$270,000.00	\$270,000.00	Purchase Nine Heavy-Duty Natural-Gas Veh	\$0.00	Yes
ML16056	City of Ontario	3/23/2016	9/22/2020	9/22/2021	\$106,565.00	\$106,565.00	Expansion of an Existing CNG Station	\$0.00	Yes
ML16058	Los Angeles County Department of P	10/7/2016	4/6/2024		\$371,898.00	\$371,898.00	Purchase 11 H.D. Nat. Gas Vehicles and Ins	\$0.00	Yes
ML16059	City of Burbank	4/1/2016	2/28/2022		\$180,000.00	\$180,000.00	Purchase 6 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML16060	City of Cudahy	2/5/2016	10/4/2017		\$73,910.00	\$62,480.00	Implement an "Open Streets" Event	\$11,430.00	Yes
ML16061	City of Murrieta	4/27/2016	1/26/2020		\$11,642.00	\$9,398.36	Installation of EV Charging Infrastructure	\$2,243.64	Yes
ML16062	City of Colton	6/3/2016	7/2/2020		\$21,003.82	\$21,003.82	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16063	City of Glendora	3/4/2016	4/3/2022		\$30,000.00	\$30,000.00	Purchase One H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16064	County of Orange, OC Parks	2/21/2017	10/20/2018		\$204,073.00	\$157,632.73	Implement "Open Streets" Events with Vario	\$46,440.27	Yes
ML16066	City of Long Beach Public Works	1/13/2017	9/12/2018	1	\$75,050.00	\$63,763.62	Implement an "Open Streets" Event	\$11,286.38	Yes
ML16068	Riverside County Dept of Public Heal	12/2/2016	8/1/2018		\$171,648.00	\$171,648.00	Implement "Open Streets" Events with Vario	\$0.00	Yes
ML16069	City of West Covina	3/10/2017	6/9/2021		\$54,199.00	\$54,199.00	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16070	City of Beverly Hills	2/21/2017	6/20/2023		\$90,000.00	\$90,000.00	Purchase 3 H.D. Nat. Gas Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16071	City of Highland	5/5/2017	1/4/2020	1/4/2023	\$264,500.00	\$264,500.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16072	City of Palm Desert	3/4/2016	1/4/2020	1/3/2022	\$56,000.00	\$56,000.00	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16073	City of Long Beach Public Works	1/13/2017	7/12/2017		\$50,000.00	\$50,000.00	Implement an "Open Streets" Event	\$0.00	Yes
ML16076	City of San Fernando	2/21/2017	8/20/2021		\$43,993.88	\$43,993.88	Install EV Charging Infrastructure	\$0.00	Yes
ML16078	City of Moreno Valley	5/6/2016	11/5/2017	5/5/2018	\$32,800.00	\$31,604.72	Install Bicycle Infrastructure & Implement Bi	\$1,195.28	Yes
ML16079	City of Yucaipa	4/1/2016	3/31/2020		\$5,000.00	\$5,000.00	Purchase Electric Lawnmower	\$0.00	Yes
ML16083	City of El Monte	4/1/2016	4/30/2021	4/30/2023	\$57,210.00	\$25,375.60	Install EV Charging Infrastructure	\$31,834.40	Yes
ML16122	City of Wildomar	6/8/2018	6/7/2019		\$500,000.00	\$500,000.00	Install Bicycle Lanes	\$0.00	Yes
ML16126	City of Palm Springs	7/31/2019	7/30/2020	10/30/2020	\$22,000.00	\$19,279.82	Install Bicycle Racks, and Implement Bicycle	\$2,720.18	Yes
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		\$1,350,000.00	\$1,332,039.84	Clean Fuel Transit Service to Dodger Stadiu	\$17,960.16	Yes
MS16002	Orange County Transportation Autho	10/6/2015	5/31/2016		\$722,266.00	\$703,860.99	Clean Fuel Transit Service to Orange Count	\$18,405.01	Yes
MS16003	Special Olympics World Games Los	10/9/2015	12/30/2015		\$380,304.00	\$380,304.00	Low-Emission Transportation Service for Sp	\$0.00	Yes
MS16004	Mineral LLC	9/4/2015	7/3/2017	1/3/2018	\$27,690.00	\$9,300.00	Design, Develop, Host and Maintain MSRC	\$18,390.00	Yes
MS16029	Orange County Transportation Autho	1/12/2018	6/11/2020		\$836,413.00	\$567,501.06	TCM Partnership Program - OC Bikeways	\$268,911.94	Yes
MS16030	Better World Group Advisors	12/19/2015	12/31/2017	12/31/2019	\$271,619.00	\$245,355.43	Programmic Outreach Services to the MSR	\$26,263.57	Yes
MS16081	EDCO Disposal Corporation	3/4/2016	10/3/2022		\$150,000.00	\$150,000.00	Expansion of Existing Public Access CNG St	\$0.00	Yes
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		\$565,600.00	\$396,930.00	Implement Special Shuttle Service from Uni	\$168,670.00	Yes
MS16085	Southern California Regional Rail Au	3/11/2016	9/30/2016		\$78,033.00	\$64,285.44	Special MetroLink Service to Autoclub Spee	\$13,747.56	Yes
MS16086	San Bernardino County Transportatio	9/3/2016	10/2/2021		\$800,625.00	\$769,021.95	Freeway Service Patrols	\$31,603.05	Yes
MS16087	Burrtec Waste & Recycling Services,	7/8/2016	3/7/2023		\$100,000.00	\$100,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS16088	Transit Systems Unlimited, Inc.	5/12/2017	1/11/2023		\$17,000.00	\$17,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS16089	Orange County Transportation Autho	7/8/2016	4/30/2017		\$128,500.00	\$128,500.00	Implement Special Bus Service to Angel Sta	\$0.00	Yes
MS16092	San Bernardino County Transportatio	2/3/2017	1/2/2019		\$242,937.00	\$242,016.53	Implement a Series of "Open Streets" Event	\$920.47	Yes
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018	9/2/2018	\$1,553,657.00	\$1,499,575.85	Implement a Mobile Ticketing System	\$54,081.15	Yes
MS16094	Riverside County Transportation Co	1/25/2017	1/24/2022	2/24/2024	\$1,909,241.00	\$1,635,864.00	MetroLink First Mile/Last Mile Mobility Strate	\$273,377.00	No
MS16095	Orange County Transportation Autho	7/22/2016	5/31/2017		\$694,645.00	\$672,864.35	Implement Special Bus Service to Orange C	\$21,780.65	Yes
MS16096	San Bernardino County Transportatio	10/27/2016	12/26/2019	6/30/2021	\$450,000.00	\$450,000.00	EV Charging Infrastructure	\$0.00	Yes
MS16097	Walnut Valley Unified School District	10/7/2016	11/6/2022		\$250,000.00	\$250,000.00	Expand CNG Station & Modify Maintenance	\$0.00	Yes
MS16099	Foothill Transit	3/3/2017	3/31/2017		\$50,000.00	\$50,000.00	Provide Special Bus Service to the Los Ange	\$0.00	Yes
MS16100	Southern California Regional Rail Au	5/5/2017	9/30/2017		\$80,455.00	\$66,169.43	Provide Metrolink Service to Autoclub Speed	\$14,285.57	Yes
MS16102	Nasa Services, Inc.	2/21/2017	4/20/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	Yes
MS16103	Arrow Services, Inc.	2/3/2017	4/2/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	Yes
MS16114	City of Norwalk	3/3/2017	6/2/2024		\$32,170.00	\$32,170.00	Purchase 3 Transit Buses	\$0.00	Yes
MS16116	Riverside Transit Agency	3/3/2017	1/2/2023		\$10,000.00	\$9,793.00	Purchase One Transit Bus	\$207.00	Yes
MS16117	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16118	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16119	Omnitrans	4/21/2017	8/20/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS16124	Riverside County Transportation Co	12/14/2018	12/14/2019	5/14/2020	\$253,239.00	\$246,856.41	Extended Freeway Service Patrols	\$6,382.59	Yes
MS16125	San Bernardino County Transportatio	9/20/2019	11/19/2020		\$1,000,000.00	\$1,000,000.00	Traffic Signal Synchronization Projects	\$0.00	Yes
MS16127	Los Angeles County MTA	6/29/2021		6/28/2022	\$2,500,000.00	\$2,500,000.00	Expansion of the Willowbrook/Rosa Parks Tr	\$0.00	Yes
Total: 85			I						
Closed/Inco	omplete Contracts								
ML16005	City of Palm Springs	3/4/2016	10/3/2017		\$40,000.00	\$0.00	Install Bicycle Racks, and Implement Bicycle	\$40,000.00	No
ML16035	City of Wildomar	4/1/2016	11/1/2017		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
ML16057	City of Yucaipa	4/27/2016	1/26/2019	1/26/2024	\$380,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$380,000.00	No
MS16082	Riverside County Transportation Co	9/3/2016	8/2/2018		\$590,759.00	\$337,519.71	Extended Freeway Service Patrols	\$253,239.29	No
MS16090	Los Angeles County MTA	10/27/2016	4/26/2020	10/26/2020	\$2,500,000.00	\$0.00	Expansion of the Willowbrook/Rosa Parks Tr	\$2,500,000.00	No
MS16091	San Bernardino County Transportatio	10/7/2016	11/6/2018		\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No
MS16123	Orange County Transportation Autho	12/7/2018	11/6/2023		\$91,760.00	\$0.00	Install La Habra Union Pacific Bikeway	\$91,760.00	No
Total: 7						-			
Open/Com	olete Contracts								
ML16008	City of Pomona	9/20/2016	11/19/2022	5/19/2025	\$60,000.00	\$60,000.00	Purchase 3 Medium-Duty and 1 Heavy-Duty	\$0.00	Yes
ML16013	City of Monterey Park	12/4/2015	7/3/2022	7/3/2024	\$90,000.00	\$90,000.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16017	City of Long Beach	2/5/2016	8/4/2023	5/4/2029	\$1,415,400.00	\$1,415,400.00	Purchase 50 Medium-Duty, 17 H.D. Nat. Ga	\$0.00	No
ML16021	City of Santa Clarita	10/7/2016	6/6/2024		\$49,400.00	\$49,399.00	Install EV Charging Infrastructure	\$1.00	Yes
ML16022	Los Angeles Department of Water an	5/5/2017	3/4/2024	6/4/2028	\$240,000.00	\$240,000.00	Purchase 8 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML16040	City of Eastvale	1/6/2017	7/5/2022	11/5/2026	\$66,409.00	\$66,040.41	Install EV Charging Infrastructure	\$368.59	Yes
MS16105	Huntington Beach Union High School	3/3/2017	7/2/2024		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16110	City of Riverside	10/6/2017	2/5/2025	10/5/2026	\$270,000.00	\$270,000.00	Expansion of Existing CNG Station and Main	\$0.00	Yes
MS16112	Orange County Transportation Autho	4/14/2017	3/13/2024		\$1,470,000.00	\$1,470,000.00	Repower Up to 98 Transit Buses	\$0.00	Yes
MS16113	Los Angeles County MTA	5/12/2017	4/11/2024		\$1,875,000.00	\$1,875,000.00	Repower Up to 125 Transit Buses	\$0.00	Yes
MS16115	City of Santa Monica	4/14/2017	7/13/2025		\$450,000.00	\$450,000.00	Repower 30 Transit Buses	\$0.00	Yes
MS16120	Omnitrans	4/7/2017	5/6/2025		\$945,000.00	\$870,000.00	Repower 63 Existing Buses	\$75,000.00	Yes
Total: 12									
Terminated	Contracts								
ML16010	City of Fullerton	10/7/2016	4/6/2023	4/6/2024	\$78,222.00	\$27,896.71	Install EV Charging Stations	\$50,325.29	Yes

\$80,000.00

\$18,655.00

Install EV Charging Infrastructure

\$61,345.00

Yes

ML16048 Total: 2 City of Placentia

3/26/2016

5/25/2021

12/25/2026

ML18050         City of Irvine         9/7/2018         8/6/2028         \$302,035,00         \$0.00         Install EVSE         \$302,010           ML18051         City of Rancho Cucarnonga         3/1/2019         10/31/2025         4/30/2030         \$91,500.00         \$82,500.00         Purchase 6 Light-Duty ZEVs, Install 3 Limite         \$31           ML18055         City of Long Beach         11/28/2018         \$74/2023         12/15/2026         \$106,250.00         \$50,000.00         Purchase 5 Zero-Emission Vehicles and Infr         \$341           ML18060         County of Los Angeles Internal Serv         10/5/2018         8/4/2026         \$14/27202         \$50,000.00         Purchase 2 Light-Duty Zero Emission Vehi         \$344           ML18063         City of Riverside         9/7/2018         11/6/2022         12/6/2027         \$835,000.00         \$0.00         Purchase 2 Light-Duty Zero Emission Vehi         \$344           ML18068         City of Mission Viejo         7/31/2019         6/3/20207         \$86,940.00         \$200,000.00         Purchase 1 Heavy-Duty Vehicles         \$364           ML18082         City of Ioxance         10/6/2018         10/4/2028         \$375,000.00         \$30,000.00         Purchase 1 Heavy-Duty Vehicles         \$376           ML18082         City of South Pasadena         2/1/2019	Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML1803         City of Damond Bar         977/2018         11/8/2027         \$\$8,930.00         Istail EVSE, Purchase up to 2-LD Vehicles         \$\$23, \$302,035.00           ML18050         City of Ranche Cucamonga         977/2018         8/6/2028         4/30/2030         \$\$10,000         \$\$26,000.00         Purchase E Light-Duty ZEVs, Instail 3 Liftik         \$\$303, \$\$302,011.53           ML18055         City of Long Beach         11/28/2018         11/28/2026         \$\$106,250.00         \$\$202,401.53         Instail EV Charging Stations         \$\$313, \$\$11,000           ML18055         City of Carson         10/5/2018         8/4/2026         \$\$4/2028         \$\$12,73,338.00         \$\$20,401.53         Instail EVSE         \$\$44, \$\$11,000           ML18055         City of Pico Rivera         97/2018         11/6/2027         \$\$62,000         \$\$00,000.00         Purchase 2 Light-Duty Zerv Emission Viehi         \$\$44, \$\$44, \$\$10,000           ML18065         City of Pico Rivera         97/2018         11/6/2027         \$\$60,000.00         \$\$00,000.00         Purchase 2 Light-Duty ZEVs & Instail EVSE         \$\$86, \$40.000         \$\$00,000.00         Purchase 2 Light-Duty ZEVs & Instail EVSE         \$\$86, \$40.000         \$\$00,000.00         Purchase 2 Light-Duty ZEVs & Instail EVSE         \$\$86, \$40.000         \$\$00,000.00         Purchase 1 Fiseery-Duty Viehicles         \$\$11/62022         \$\$12	FY 2016	6-2018 Contracts								
ML18950         City of Irvine         9/7/2018         8/6/2028         \$302,035,00         \$0.00         Install EVSE         \$302,035,00           ML18051         City of Rancho Quamonga         3/1/2019         10/31/2025         4/30/203         \$91,500.00         \$82,600.00         Purchase 6 Light-Duty ZEVs, Install 3 Limite         \$313,000           ML18057         City of Long Beach         11/28/2018         7/4/2023         \$12/15/2026         \$106,250.00         \$50,000.00         Purchase 5 Zero-Emission Vehicles and Infr         \$341           ML18060         County of Los Angeles Internal Serv         10/5/2018         8/4/2026         \$4/4722         \$355,000.00         \$200.00         Purchase 2 Light-Duty Zero Emission Vehi         \$344           ML18067         City of Riverside         6/7/2019         11/6/2027         \$385,940.00         \$200.000         Purchase 2 Light-Duty Zero Emission Vehi         \$344           ML18068         City of Mission Viejo         7/31/2027         12/5/2027         \$385,940.00         \$200,000.00         Purchase 1 Heavy-Duty Vehicles         \$367           ML18080         City of South El Monte         10/6/2019         8/29/2028         \$330,000.00         \$30.000         Purchase 1 Meavy-Duty Vehicles         \$37           ML18082         City of South Pasadena         2/1/20	Open Cont	racts								
ML18051         City of Rancho Cucamonga         3/1/2019         10/31/2025         4/30/2030         \$\$15,500.00         \$\$25,500.00         Purchase 6 Light-Duty ZEVs, Install 3 Limite         \$\$35           ML18055         City of Long Beach         11/28/2018         11/28/2028         \$\$102,520.00         \$\$302,401.53         Install EV Charging Stations         \$\$315           ML18050         County of Los Angeles Internal Servi         10%/5/2018         8/4/2026         \$\$127,3938.00         \$\$724,888.96         Purchase 5 Zaro-Emission Vehicles and Infr         \$\$55           ML18060         County of Los Angeles Internal Servi         10%/5/2018         8/4/2027         \$\$65,000.00         \$\$200.00.00         Purchase 2 Light-Duty Zero S Install EVSE         \$\$68           ML18067         City of Riveraide         7/31/2019         11/6/2027         \$\$68,940.00         \$\$100.00.00         Purchase 4 Heavy-Duty Near-Zero Emission         \$\$65           ML18078         County of Riverside         10/5/2018         10/4/2028         \$\$375,000.00         \$\$00.00         Purchase 4 Heavy-Duty Vehicles         \$\$77           ML18082         City of South Pasadena         2/1/2019         1/31/2029         \$\$30,000.00         \$\$00.00         Purchase 4 Heavy-Duty Near-Zero Emission         \$\$15           ML18082         City of South Pasadena		1	9/7/2018	11/6/2025	11/6/2027	\$58,930.00	\$38,930.00	Install EVSE, Purchase up to 2-LD Vehicles	\$20,000.00	No
MI.1805         City of Long Beach         11/28/2016         11/28/2016         11/28/2016         St02,220.0         \$302,401.53         Install EV Charging Stations         \$311           MI.1805         City of Carson         10/5/2018         7/4/2023         12/15/2026         \$106,200.0         \$Purchase 5 Zerc-Emission Vehicles and Intr         \$544           MI.18060         County of Los Angeles Internal Servi         10/5/2018         8/4/2028         \$53,000.00         \$20,000.00         Purchase 5 Zerc-Emission Vehicles and Intr         \$545           MI.18067         City of Pico Rivera         9/7/2018         11/6/2027         3/6/2028         \$53,000.00         \$20,000.00         Purchase 22 Light-Duty ZEV & Install EVSE         \$66           MI.18068         City of Mission Viejo         7/31/2019         10/31/2027         \$337,000.00         \$20,000.00         Purchase 4 Heavy-Duty Near-Zero Emission         \$63           MI.18078         County of Riverside         10/5/2018         10/4/2028         \$375,000.00         \$0.00         Purchase 15 Heavy-Duty Near-Zero Emission         \$63           MI.18072         City of Los Angeles Bureau of Santa         8/30/2019         \$2/3/2028         \$307,000.00         \$0.00         Purchase 15 Heavy-Duty Near-Zero Emission         \$63           MI.18082         City of Los Angeles Bureau	ML18050	City of Irvine	9/7/2018	8/6/2028		\$302,035.00	\$0.00	Install EVSE	\$302,035.00	No
MI.1805         City of Long Beach         11/28/2016         11/28/2016         11/28/2016         St02,220.0         \$302,401.53         Install EV Charging Stations         \$311           MI.1805         City of Carson         10/5/2018         7/4/2023         12/15/2026         \$106,200.0         \$Purchase 5 Zerc-Emission Vehicles and Intr         \$544           MI.18060         County of Los Angeles Internal Servi         10/5/2018         8/4/2028         \$53,000.00         \$20,000.00         Purchase 5 Zerc-Emission Vehicles and Intr         \$545           MI.18067         City of Pico Rivera         9/7/2018         11/6/2027         3/6/2028         \$53,000.00         \$20,000.00         Purchase 22 Light-Duty ZEV & Install EVSE         \$66           MI.18068         City of Mission Viejo         7/31/2019         10/31/2027         \$337,000.00         \$20,000.00         Purchase 4 Heavy-Duty Near-Zero Emission         \$63           MI.18078         County of Riverside         10/5/2018         10/4/2028         \$375,000.00         \$0.00         Purchase 15 Heavy-Duty Near-Zero Emission         \$63           MI.18072         City of Los Angeles Bureau of Santa         8/30/2019         \$2/3/2028         \$307,000.00         \$0.00         Purchase 15 Heavy-Duty Near-Zero Emission         \$63           MI.18082         City of Los Angeles Bureau	ML18051	City of Rancho Cucamonga	3/1/2019	10/31/2025	4/30/2030	\$91,500.00	\$82,500.00	Purchase 6 Light-Duty ZEVs, Install 3 Limite	\$9,000.00	No
ML18060         County of Los Angeles Internal Servi         10/5/2018         8/4/2026         8/1/273,938.00         \$724,868.96         Purchase 29 Light-Duty Zero Emission Vehi         \$544           ML18063         City of Riverside         6/7/2019         11/6/2027         3/67/2028         \$550,000.00         \$0.00         Expand Existing CNG Station         \$564           ML18067         City of Pico Rivera         9/7/2019         16/2027         \$86,940.00         \$20,000.00         Purchase 2 Light-Duty ZEVs & Install EVSE         \$864           ML18068         City of Mission Viejo         7/31/2019         6/30/2027         12/31/2028         \$187,000.00         Purchase 1 Heavy-Duty Near-Zero Emission         \$86           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         \$375,000.00         \$30.00         Purchase 4 Heavy-Duty Vehicles and 8 Li         \$900           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         \$300,000.00         \$0.00         Purchase 4 Medium-Duty Vehicles and 8 Li         \$900           ML18082         City of Los Angeles Dureau of Sanita         8/30/2019         \$92/2028         \$300,000.00         \$0.00         Purchase 4 Medium-Duty Vehicles and 8 Li         \$900           ML18045         City of South Fe Monte	ML18055		11/29/2018	11/28/2026	11/28/2028	\$622,220.00	\$302,401.53	Install EV Charging Stations	\$319,818.47	No
ML18063         City of Riverside         6/7/2019         1/6/2027         3/6/2028         \$50,000.00         \$0.00         Expand Existing CNG Station         \$55           ML18067         City of Pico Rivera         9/7/2018         11/6/2027         \$86,940.00         \$0.00         Purchase 2 Light-Duty ZEVs & Install EVSE         \$86           ML18068         City of Nission Viejo         7/31/2019         7/31/2027         12/31/2028         \$187,400.00         \$100,000.00         Purchase 4 Heavy-Duty Near-Zero Emission         \$86           ML18078         County of Riverside         10/5/2018         10/4/2028         \$375,000.00         \$0.00         Purchase 4 Heavy-Duty Vehicles         \$77           ML18080         City of South El Monte         10/16/2019         9/7/2023         330,000.00         \$0.00         Purchase 4 Medium-Duty Vehicles and 8 Li         \$90           ML18082         City of South Pasadena         2/1/2019         1/31/2025         4/30/2027         \$50,000.00         \$0.00         Purchase Tree Light-Duty ZEVs and Install EV         \$33           ML18135         City of Los Angeles Dept of General         5/3/2019         5/2/2029         \$116,000.00         \$0.00         Purchase Tree Light-Duty ZEVs         \$33           ML18143         City of Los Angeles Dept of Transpor         1/10/2020 <td>ML18057</td> <td>City of Carson</td> <td>10/5/2018</td> <td>7/4/2023</td> <td>12/15/2026</td> <td>\$106,250.00</td> <td>\$50,000.00</td> <td>Purchase 5 Zero-Emission Vehicles and Infr</td> <td>\$56,250.00</td> <td>No</td>	ML18057	City of Carson	10/5/2018	7/4/2023	12/15/2026	\$106,250.00	\$50,000.00	Purchase 5 Zero-Emission Vehicles and Infr	\$56,250.00	No
ML18067         City of Pico Rivera         9/7/2018         11/6/2022         12/6/2027         \$83,500.00         \$0.00         Install EVSE         \$83           ML18086         City of Mission Viejo         7/31/2019         6/30/2027         \$86,940.00         \$20,000.00         Purchase 2 Light-Duty ZEVS & Install EVSE         \$66           ML18086         City of Torrance         3/1/2019         7/31/2027         12/31/2028         \$187,400.00         \$100,000.00         Purchase 1 Heavy-Duty Vehicles         \$87           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         \$290.000.00         \$300.000.00         Purchase 15 Heavy-Duty Vehicles and 8 Li         \$900           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         9/17/2023         3/30/2028         \$30,000.00         \$0.00         Purchase 15 Heavy-Duty Vehicles and 8 Li         \$900           ML18082         City of Los Angeles Dept of General         5/3/2019         5/2/2028         \$116,000.00         \$0.00         Purchase Two Medium-Duty ZEVs at Install EV         \$33           ML18145         City of Los Angeles Dept of General         5/3/2019         12/2/2028         \$116,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$3116           ML18145         City of Los Angeles D	ML18060	County of Los Angeles Internal Servi	10/5/2018	8/4/2026	8/4/2028	\$1,273,938.00	\$724,868.96	Purchase 29 Light-Duty Zero Emission Vehi	\$549,069.04	No
ML18068         City of Mission Viejo         7/31/2019         6/30/2027         \$86,940.00         \$20,000.00         Purchase 2 Light-Duty ZEVs & Install EVSE         \$86           ML18069         City of Torrance         31//2019         7/31/2027         1/21/2028         \$187,400.00         \$100,000.00         Purchase 15 Heavy-Duty Vehicles         \$37           ML18078         County of Riverside         10/5/2018         10/4/2028         \$375,000.00         \$300,000.00         Purchase 15 Heavy-Duty Vehicles         \$37           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         \$320,000.00         \$0.00         Purchase 15 Heavy-Duty Vehicles         \$33           ML18082         City of South Pasadena         2/1/2019         1/31/2028         \$320,000.00         \$20,000.00         Purchase Two Medium-Duty ZeVs         \$111           ML18135         City of Azusa         12/6/2019         12/5/2029         \$30,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$311           ML18145         City of Azusa         12/6/2019         12/5/2029         \$30,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$331           ML18147         City of Azusa         1/2/1/2021         1/2/2024         7/9/2026         \$90,000.00         \$1	ML18063	City of Riverside	6/7/2019	1/6/2027	3/6/2028	\$50,000.00	\$0.00	Expand Existing CNG Station	\$50,000.00	No
ML18069         City of Torrance         3/1/2019         7/31/2027         12/31/2028         \$187,400.00         \$100,000.00         Purchase 4 Heavy-Duty Near-Zero Emission         \$363           ML18078         County of Riverside         10/5/2018         10/4/2028         \$375,000.00         \$300,000.00         Purchase 15 Heavy-Duty Vehicles         \$77           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         8/30,000.00         \$0.00         EV Charging Infrastructure         \$33           ML18084         City of South Pasadena         2/1/2019         1/31/2025         4/30/2027         \$50,000.00         \$20,000.00         Purchase Two Medium-Duty ZEVs and Install EV         \$33           ML18145         City of Los Angeles Dept of General         5/2/2029         \$30,000.00         \$20,000.00         Purchase Two Medium-Duty ZEVs         \$114           ML18145         City of Los Angeles Dept of Transport         1/10/2020         4/3/2027         12/31/2028         \$1,400,000.00         \$1,000,000         Purchase Eight Heavy-Duty Near-Zero Emissis         \$30           ML18145         City of San Dimas         1/10/2020         1/2/31/2024         \$30,000.00         \$30.00         Install Eighteen EV Charging Infrastructure         \$33           ML18145         City of San Bernardino Depar	ML18067	City of Pico Rivera	9/7/2018	11/6/2022	12/6/2027	\$83,500.00	\$0.00	Install EVSE	\$83,500.00	No
ML18078         County of Riverside         10/5/2018         10/4/2028         \$375,00.00         \$300,000.00         Purchase 15 Heavy-Duty Vehicles         \$77           ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         \$300,000.00         \$0.00         Purchase 8 Medium-Duty Vehicles and 8 Li         \$900           ML18082         City of South FI Monte         10/18/2019         9/17/2023         3/30/2027         \$\$0,000.00         \$20,000.00         Purchase 8 Medium-Duty Vehicles and 8 Li         \$900           ML18082         City of South Pasadena         2/1/2019         1/31/2025         4/30/2027         \$\$0,000.00         \$20,000.00         Procure Two Light-Duty ZEVs and Install EV         \$330           ML18134         City of Los Angeles Dept of General         5/3/2019         5/2/2028         \$1,400,000.00         \$1,000,000.00         Purchase Two Medium-Duty ZEVs         \$330           ML18143         City of Azusa         12/6/2019         12/5/2029         \$330,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$330           ML18145         City of Palm Springs         1/10/2020         4/9/2027         12/31/2028         \$1,400,000.00         \$1,000,000.00         Purchase Five Heavy-Duty Near Zero Emiss         \$330           ML18145         City of Palm	ML18068	City of Mission Viejo	7/31/2019	6/30/2027		\$86,940.00	\$20,000.00	Purchase 2 Light-Duty ZEVs & Install EVSE	\$66,940.00	No
ML18082         City of Los Angeles Bureau of Sanita         8/30/2019         8/29/2028         8/29/2029         \$900,000.00         \$0.00         Purchase 8 Medium-Duty Vehicles and 8 Li         \$900           ML18084         City of South El Monte         10/18/2019         9/17/2023         3/30/2028         \$30,000.00         \$20,000.00         EV Charging Infrastructure         \$33           ML18092         City of South Pasadena         2/1/2019         1/31/2025         4/30/2027         \$\$50,000.00         \$20,000.00         Purchase Two Medium-Duty ZEVs and Install EV         \$33           ML18135         City of Los Angeles Dept of General         5/2/2029         \$116,000.00         \$0.00         Purchase Three Light-Duty ZEVs         \$31           ML18145         City of Los Angeles Dept of Transpor         1/10/2020         4/9/2027         1/2/31/2028         \$1,400,000.00         \$1,r00,000.00         Purchase Three Light-Duty ZEVs         \$33           ML18145         City of Palm Springs         1/10/2020         4/9/2027         1/2/31/2028         \$1,400,000.00         \$1,r00,000.00         Install Eighteen EV Charging Stations         \$66           ML18145         City of San Bernardino Departme         8/25/2020         10/2/2029         \$200,000.00         \$1,50,000.00         Purchase Five Heavy-Duty Near Zero Emiss         \$33	ML18069	City of Torrance	3/1/2019	7/31/2027	12/31/2028	\$187,400.00	\$100,000.00	Purchase 4 Heavy-Duty Near-Zero Emission	\$87,400.00	No
ML18084         City of South El Monte         10/18/2019         9/17/2023         3/30/2028         \$30,000.00         \$0.00         EV Charging Infrastructure         \$33           ML18092         City of South Pasadena         2/1/2019         1/31/2025         4/30/2027         \$50,000.00         \$20,000.00         Procure Two Light-Duty ZEVs and Install EV         \$33           ML18134         City of Los Angeles Dept of General         5/3/2019         5/2/2029         \$116,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$311           ML18135         City of Los Angeles Dept of General         12/6/2019         12/5/2029         \$30,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$330           ML18145         City of Los Angeles Dept of Transport         11/0/2020         12/5/2029         \$30,000.00         \$0.00         Purchase Three Light-Duty ZEVs         \$330           ML18145         City of Palm Springs         11/10/2019         1/9/2024         7/9/2026         \$60,000.00         \$0.00         Install Eighteen EV Charging Stations         \$66           ML18151         County of San Bernardino Departme         8/25/202         10/24/2029         \$200,000.00         \$150,000.00         Purchase Five Heavy-Duty Near-Zero Emiss         \$327           ML18166         City of Pacentia	ML18078	County of Riverside	10/5/2018	10/4/2028		\$375,000.00	\$300,000.00	Purchase 15 Heavy-Duty Vehicles	\$75,000.00	No
ML18092         City of South Pasadena         2/1/2019         1/31/2025         4/30/2027         \$50,000.00         \$20,000.00         Procure Two Light-Duty ZEVs and Install EV         \$33           ML18134         City of Los Angeles Dept of General         5/3/2019         5/2/2029         \$30,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$114           ML18135         City of Azusa         12/6/2019         12/5/2029         \$30,000.00         \$0.00         Purchase Three Light-Duty ZEVs         \$33           ML18147         City of Azusa         12/6/2019         12/5/2029         \$30,000.00         \$1,100,000.00         Provide One Hundred Rebates to Purchaser         \$300           ML18147         City of San Dimas         1/10/2019         1/9/2026         \$60,000.00         \$0.00         Install Eighteen EV Charging Stations         \$66           ML18145         Coty of San Bernardino Departme         8/25/2020         10/24/2029         \$220,000.00         \$0.00         Implement Bicycle Detection Measures         \$56           ML18152         County of San Bernardino Departme         8/25/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase One Heavy-Duty Near Zero Emiss         \$325           ML18165         City of La Puente         11/1/2019         11/30/2028         \$	ML18082	City of Los Angeles Bureau of Sanita	8/30/2019	8/29/2028	8/29/2029	\$900,000.00	\$0.00	Purchase 8 Medium-Duty Vehicles and 8 Li	\$900,000.00	No
ML18134         City of Los Angeles Dept of General         5/3/2019         5/2/2028         5/2/2029         \$116,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$116           ML18135         City of Azusa         12/6/2019         12/5/2029         \$30,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$33           ML18145         City of Los Angeles Dept of Transpor         1/10/2020         4/9/2027         12/31/2028         \$1,400,000.00         \$0.00         Purchase Two Medium-Duty ZEVs         \$330           ML18147         City of Palm Springs         1/10/2019         1/9/2024         7/9/2026         \$60,000.00         \$0.00         Install Eighteen EV Charging Stations         \$66           ML18151         County of San Bernardino Departme         8/25/2020         10/24/2029         \$200,000.00         \$150,000.00         Purchase Eight Heavy-Duty Near Zero Emissi         \$333           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase One Heavy-Duty Near Zero Emissi         \$333           ML18158         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Install Eighteen Y-Duty Near-Zero Emissi         \$224           ML18186	ML18084	City of South El Monte	10/18/2019	9/17/2023	3/30/2028	\$30,000.00	\$0.00	EV Charging Infrastructure	\$30,000.00	No
ML18135         City of Azusa         12/6/2019         12/5/2029         \$30,000.00         \$0.00         Purchase Three Light-Duty ZEVs         \$33           ML18145         City of Los Angeles Dept of Transpor         1/10/2020         4/9/2027         12/31/2028         \$1,400,000.00         \$1,100,000.00         Provide One Hundred Rebates to Purchaser         \$300           ML18147         City of Palm Springs         1/10/2019         1/9/2024         7/9/2026         \$60,000.00         \$0.00         Install Eighteen EV Charging Stations         \$60           ML18148         City of San Dimas         1/21/2022         5/20/2023         11/20/2024         \$50,000.00         \$0.00         Implement Bicycle Detection Measures         \$60           ML18151         County of San Bernardino Departme         8/25/2020         10/24/2029         \$200,000.00         \$150,000.00         Purchase Tive Heavy-Duty Near Zero Emiss         \$33           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase One Heavy-Duty Near Zero Emiss         \$33           ML18165         City of Placentia         2/18/2021         5/17/2027         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near Zero Emiss         \$22           ML18175         City of Vilaomar </td <td>ML18092</td> <td>City of South Pasadena</td> <td>2/1/2019</td> <td>1/31/2025</td> <td>4/30/2027</td> <td>\$50,000.00</td> <td>\$20,000.00</td> <td>Procure Two Light-Duty ZEVs and Install EV</td> <td>\$30,000.00</td> <td>No</td>	ML18092	City of South Pasadena	2/1/2019	1/31/2025	4/30/2027	\$50,000.00	\$20,000.00	Procure Two Light-Duty ZEVs and Install EV	\$30,000.00	No
ML18145         City of Los Angeles Dept of Transpor         1/10/2020         4/9/2027         12/31/2028         \$1,400,000.00         \$1,100,000.00         Provide One Hundred Rebates to Purchaser         \$300           ML18147         City of Palm Springs         1/10/2019         1/9/2024         7/9/2026         \$60,000.00         \$0.00         Install Eighteen EV Charging Stations         \$60           ML18148         City of San Dimas         1/21/2022         5/20/2023         11/20/2024         \$50,000.00         \$0.00         Implement Bicycle Detection Measures         \$50           ML18151         County of San Bernardino Departme         8/25/2020         10/24/2029         \$200,000.00         \$150,000.00         Purchase Fight Heavy-Duty Near Zero Emiss         \$33           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$25,000.00         \$0.00         Purchase Five Heavy-Duty Near Zero Emiss         \$33           ML18178         City of Placentia         2/18/2021         5/17/2027         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near Zero Emiss         \$32           ML18178         City of Vildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$22           ML18185         City of Wildomar	ML18134	City of Los Angeles Dept of General	5/3/2019	5/2/2028	5/2/2029	\$116,000.00	\$0.00	Purchase Two Medium-Duty ZEVs	\$116,000.00	No
ML18147         City of Palm Springs         1/10/2019         1/9/2024         7/9/2026         \$60,000.00         \$0.00         Install Eighteen EV Charging Stations         \$60           ML18143         City of San Dimas         1/21/2022         5/20/2023         11/20/2024         \$50,000.00         \$0.00         Implement Bicycle Detection Measures         \$50           ML18151         County of San Bernardino Departme         8/25/2020         10/24/2029         \$200,000.00         \$150,000.00         Purchase Eight Heavy-Duty Near Zero Emiss         \$50           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase Five Heavy-Duty Near Zero Emiss         \$33           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near Zero Emiss         \$33           ML18178         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near Zero Emiss         \$22           ML18186         City of Vildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Eicycle Trail         \$24           MS18024         Riverside County Transportation	ML18135	City of Azusa	12/6/2019	12/5/2029		\$30,000.00	\$0.00	Purchase Three Light-Duty ZEVs	\$30,000.00	No
ML18148         City of San Dimas         1/21/2022         5/20/2023         11/20/2024         \$50,000.00         \$0.00         Implement Bicycle Detection Measures         \$50           ML18151         County of San Bernardino Departme         8/25/2020         10/24/2029         \$200,000.00         \$150,000.00         Purchase Eight Heavy-Duty Near Zero Emiss         \$50           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase Five Heavy-Duty Near Zero Emiss         \$33           ML18166         City of Placentia         2/18/2021         5/17/2027         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emiss         \$24           ML18156         City of La Puente         11/1/2019         11/30/2025         \$1/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emiss         \$24           ML18156         City of Wildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$24           ML18166         City of Vildomar         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install EV Charging Infrastructure         \$44           MS18024         Riverside County Transportatio         6/28/2018         8/27/202	ML18145	City of Los Angeles Dept of Transpor	1/10/2020	4/9/2027	12/31/2028	\$1,400,000.00	\$1,100,000.00	Provide One Hundred Rebates to Purchaser	\$300,000.00	No
ML18151         County of San Bernardino Departme         8/25/2020         10/24/2029         \$200,000.00         \$150,000.00         Purchase Eight Heavy-Duty Near Zero Emiss         \$500           ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase Five Heavy-Duty Near Zero Emissi         \$333           ML18166         City of Placentia         2/18/2021         5/17/2027         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emissi         \$325           ML18178         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emissi         \$225           ML18185         City of Vildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$225           ML18186         City of Paramount         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install Bicycle Trail         \$225           MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,500,000.00         \$10,54,760.00         Vanpool Incentive Program         \$444           MS18027         City of Gardena         11/2/2018         9/1/2026<	ML18147	City of Palm Springs	1/10/2019	1/9/2024	7/9/2026	\$60,000.00	\$0.00	Install Eighteen EV Charging Stations	\$60,000.00	No
ML18152         County of San Bernardino Flood Con         8/11/2020         10/10/2029         \$108,990.00         \$75,000.00         Purchase Five Heavy-Duty Near Zero Emissi         \$33           ML18166         City of Placentia         2/18/2021         5/17/2027         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emissi         \$22           ML18178         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emissi         \$22           ML18178         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emissi         \$22           ML18185         City of Viidomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$22           ML18186         City of Paramount         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install Bicycle Trail         \$24           MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,050,000.00         \$1,054,760.00         Vanpool Incentive Program         \$444           MS18027         City of Gardena         11/2/2018         9/1/2026 <td>ML18148</td> <td>City of San Dimas</td> <td>1/21/2022</td> <td>5/20/2023</td> <td>11/20/2024</td> <td>\$50,000.00</td> <td>\$0.00</td> <td>Implement Bicycle Detection Measures</td> <td>\$50,000.00</td> <td>No</td>	ML18148	City of San Dimas	1/21/2022	5/20/2023	11/20/2024	\$50,000.00	\$0.00	Implement Bicycle Detection Measures	\$50,000.00	No
ML18166         City of Placentia         2/18/2021         5/17/2027         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emiss         \$25           ML18178         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emiss         \$25           ML18178         City of Vildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$25           ML18185         City of Paramount         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install EV Charging Infrastructure         \$44           MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,500,000.00         \$1,054,760.00         Vanpool Incentive Program         \$44           MS18027         City of Gardena         11/2/2018         9/1/2026         10/1/2029         \$365,000.00         \$0.00         Install New Limited Access CNG, Modify Mai         \$365           MS18065         San Bernardino County Transportatio         3/29/2019         8/28/2023         3/28/2024         \$2,000,000.00         Expansion of Existing Infrastructure/Mechani         \$11           MS18106         R.F. Dickson Co., Inc.         7/19/2019	ML18151	County of San Bernardino Departme	8/25/2020	10/24/2029		\$200,000.00	\$150,000.00	Purchase Eight Heavy-Duty Near Zero Emis	\$50,000.00	No
ML18178         City of La Puente         11/1/2019         11/30/2025         11/30/2028         \$25,000.00         \$0.00         Purchase One Heavy-Duty Near-Zero Emiss         \$25           ML18185         City of Wildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$25           ML18185         City of Paramount         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install EV Charging Infrastructure         \$44           MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,500,000.00         \$1,054,760.00         Vanpool Incentive Program         \$444           MS18027         City of Gardena         11/2/2018         9/1/2026         10/1/2029         \$365,000.00         \$0.00         Install New Limited Access CNG, Modify Mai         \$365           MS18065         San Bernardino County Transportatio         3/29/2019         8/28/2023         3/28/2024         \$2,000,000.00         Expansion of Existing Infrastructure/Mechani         \$11           MS18106         R.F. Dickson Co., Inc.         7/19/2019         1/18/2026         \$265,000.00         \$250,000.00         Expansion of Existing Infrastructure/Mechani         \$11           MS18181         San Bernardino County Transportatio	ML18152	County of San Bernardino Flood Con	8/11/2020	10/10/2029		\$108,990.00	\$75,000.00	Purchase Five Heavy-Duty Near Zero Emissi	\$33,990.00	No
ML18185         City of Wildomar         10/19/2023         10/18/2024         \$25,000.00         \$0.00         Install Bicycle Trail         \$25           ML18186         City of Paramount         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install EV Charging Infrastructure         \$42           MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,500,000.00         \$1,054,760.00         Vanpool Incentive Program         \$44           MS18027         City of Gardena         11/2/2018         9/1/2026         10/1/2029         \$365,000.00         \$0.00         Install New Limited Access CNG, Modify Mai         \$366           MS18065         San Bernardino County Transportatio         3/29/2019         8/28/2023         3/28/2024         \$2,000,000.00         Implement Metrolink Line Fare Discount Pro           MS18106         R.F. Dickson Co., Inc.         7/19/2019         1/18/2026         \$265,000.00         \$250,000.00         Expansion of Existing Infrastructure/Mechani         \$11           MS18181         San Bernardino County Transportatio         4/10/2023         9/9/2030         \$1,662,000.00         \$20.00         Construct Hydrogen Fueling Station         \$1,662           MS18182         Air Products and Chemicals Inc.         3/8/2023 <td< td=""><td>ML18166</td><td>City of Placentia</td><td>2/18/2021</td><td>5/17/2027</td><td></td><td>\$25,000.00</td><td>\$0.00</td><td>Purchase One Heavy-Duty Near-Zero Emiss</td><td>\$25,000.00</td><td>No</td></td<>	ML18166	City of Placentia	2/18/2021	5/17/2027		\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
ML18186         City of Paramount         8/1/2024         2/28/2025         \$42,686.00         \$0.00         Install EV Charging Infrastructure         \$42           MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,500,000.00         \$1,054,760.00         Vanpool Incentive Program         \$44           MS18027         City of Gardena         11/2/2018         9/1/2026         10/1/2029         \$365,000.00         \$0.00         Install New Limited Access CNG, Modify Mai         \$365           MS18065         San Bernardino County Transportatio         3/29/2019         8/28/2023         3/28/2024         \$2,000,000.00         Implement Metrolink Line Fare Discount Pro           MS18106         R.F. Dickson Co., Inc.         7/19/2019         1/18/2026         \$265,000.00         \$250,000.00         Expansion of Existing Infrastructure/Mechani         \$119           MS18181         San Bernardino County Transportatio         4/10/2023         9/9/2030         \$1,662,000.00         \$0.00         Construct Hydrogen Fueling Station         \$1,662           MS18182         Air Products and Chemicals Inc.         3/8/2023         2/7/2031         \$1,000,000.00         \$0.00         Install Publicly Accessible Hydrogen Fueling         \$1,000            Strain         Str	ML18178	City of La Puente	11/1/2019	11/30/2025	11/30/2028	\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
MS18024         Riverside County Transportation Co         6/28/2018         8/27/2021         8/31/2024         \$1,500,000.00         \$1,054,760.00         Vanpool Incentive Program         \$445           MS18027         City of Gardena         11/2/2018         9/1/2026         10/1/2029         \$365,000.00         \$0.00         Install New Limited Access CNG, Modify Mai         \$366           MS18065         San Bernardino County Transportatio         3/29/2019         8/28/2023         3/28/2024         \$2,000,000.00         Implement Metrolink Line Fare Discount Pro           MS18106         R.F. Dickson Co., Inc.         7/19/2019         1/18/2026         \$265,000.00         \$250,000.00         Expansion of Existing Infrastructure/Mechani         \$16           MS18181         San Bernardino County Transportatio         4/10/2023         9/9/2030         \$1,662,000.00         \$0.00         Construct Hydrogen Fueling Station         \$1,662           MS18182         Air Products and Chemicals Inc.         3/8/2023         2/7/2031         \$1,000,000.00         \$0.00         Install Publicly Accessible Hydrogen Fueling         \$1,000           Declined/Cancelled Contracts	ML18185	City of Wildomar	10/19/2023	10/18/2024		\$25,000.00	\$0.00	Install Bicycle Trail	\$25,000.00	No
MS18027City of Gardena11/2/20189/1/202610/1/2029\$365,000.00\$0.00Install New Limited Access CNG, Modify Mai\$365MS18065San Bernardino County Transportatio3/29/20198/28/20233/28/2024\$2,000,000.00\$2,000,000.00Implement Metrolink Line Fare Discount ProMS18106R.F. Dickson Co., Inc.7/19/20191/18/2026\$265,000.00\$250,000.00Expansion of Existing Infrastructure/Mechani\$16MS18181San Bernardino County Transportatio4/10/20239/9/2030\$1,662,000.00\$0.00Construct Hydrogen Fueling Station\$1,662MS18182Air Products and Chemicals Inc.3/8/20232/7/2031\$1,000,000.00\$0.00Install Publicly Accessible Hydrogen Fueling\$1,000Declined/Cancelled Contracts	ML18186	City of Paramount	8/1/2024	2/28/2025		\$42,686.00	\$0.00	Install EV Charging Infrastructure	\$42,686.00	No
MS18065       San Bernardino County Transportatio       3/29/2019       8/28/2023       3/28/2024       \$2,000,000.00       Implement Metrolink Line Fare Discount Pro         MS18106       R.F. Dickson Co., Inc.       7/19/2019       1/18/2026       \$265,000.00       \$250,000.00       Expansion of Existing Infrastructure/Mechani       \$115         MS18181       San Bernardino County Transportatio       4/10/2023       9/9/2030       \$1,662,000.00       \$0.00       Construct Hydrogen Fueling Station       \$1,662         MS18182       Air Products and Chemicals Inc.       3/8/2023       2/7/2031       \$1,000,000.00       \$0.00       Install Publicly Accessible Hydrogen Fueling       \$1,000         Declined/Cancelled Contracts	MS18024	Riverside County Transportation Co	6/28/2018	8/27/2021	8/31/2024	\$1,500,000.00	\$1,054,760.00	Vanpool Incentive Program	\$445,240.00	No
MS18106       R.F. Dickson Co., Inc.       7/19/2019       1/18/2026       \$265,000.00       \$250,000.00       Expansion of Existing Infrastructure/Mechani       \$15         MS18106       San Bernardino County Transportatio       4/10/2023       9/9/2030       \$1,662,000.00       \$0.00       Construct Hydrogen Fueling Station       \$1,662         MS18182       Air Products and Chemicals Inc.       3/8/2023       2/7/2031       \$1,000,000.00       \$0.00       Install Publicly Accessible Hydrogen Fueling       \$1,000         Declined/Cancelled Contracts	MS18027	City of Gardena	11/2/2018	9/1/2026	10/1/2029	\$365,000.00	\$0.00	Install New Limited Access CNG, Modify Mai	\$365,000.00	No
MS18181       San Bernardino County Transportatio       4/10/2023       9/9/2030       \$1,662,000.00       \$0.00       Construct Hydrogen Fueling Station       \$1,662         MS18182       Air Products and Chemicals Inc.       3/8/2023       2/7/2031       \$1,000,000.00       \$0.00       Install Publicly Accessible Hydrogen Fueling       \$1,000         Total: 31         Declined/Cancelled Contracts	MS18065	San Bernardino County Transportatio	3/29/2019	8/28/2023	3/28/2024	\$2,000,000.00	\$2,000,000.00	Implement Metrolink Line Fare Discount Pro	\$0.00	Yes
MS18182       Air Products and Chemicals Inc.       3/8/2023       2/7/2031       \$1,000,000.00       \$0.00       Install Publicly Accessible Hydrogen Fueling       \$1,000         Total:       31         Declined/Cancelled Contracts       Install Publicly Accessible Hydrogen Fueling       \$1,000	MS18106	R.F. Dickson Co., Inc.	7/19/2019	1/18/2026		\$265,000.00	\$250,000.00	Expansion of Existing Infrastructure/Mechani	\$15,000.00	No
Total: 31 Declined/Cancelled Contracts	MS18181	San Bernardino County Transportatio	4/10/2023	9/9/2030		\$1,662,000.00	\$0.00	Construct Hydrogen Fueling Station	\$1,662,000.00	No
Declined/Cancelled Contracts	MS18182	Air Products and Chemicals Inc.	3/8/2023	2/7/2031		\$1,000,000.00	\$0.00	Install Publicly Accessible Hydrogen Fueling	\$1,000,000.00	No
	Total: 31									
ML18044 City of Malibu 8/8/2018 10/7/2022 10/7/2023 \$50,000,00 \$0,00 Install EV Charging Infrastructure \$50	Declined/C	ancelled Contracts								
	ML18044	City of Malibu	8/8/2018	10/7/2022	10/7/2023	\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18053	City of Paramount	9/7/2018	3/6/2023		\$64,675.00	\$0.00	Install EV Charging Infrastructure	\$64,675.00	No
ML18075	City of Orange				\$25,000.00	\$0.00	One Heavy-Duty Vehicle	\$25,000.00	No
ML18140	City of Bell Gardens	12/14/2018	12/13/2028		\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-ZEVs	\$50,000.00	No
ML18149	City of Sierra Madre				\$50,000.00	\$0.00	Implement Bike Share Program	\$50,000.00	No
ML18150	City of South El Monte				\$20,000.00	\$0.00	Implement Bike Share Program	\$20,000.00	No
ML18153	City of Cathedral City	5/3/2019	4/2/2025		\$52,215.00	\$0.00	Install EV Charging Infrastructure	\$52,215.00	No
ML18158	City of Inglewood				\$146,000.00	\$0.00	Purchase 4 Light-Duty Zero Emission, 4 Hea	\$146,000.00	No
ML18164	City of Pomona				\$200,140.00	\$0.00	Purchase Three Heavy-Duty ZEVs	\$200,140.00	No
ML18165	City of Baldwin Park	2/1/2019	1/30/2024		\$49,030.00	\$0.00	Expand CNG Station	\$49,030.00	No
ML18172	City of Huntington Park	3/1/2019	2/28/2025		\$65,450.00	\$0.00	Purchase One Heavy-Duty ZEV	\$65,450.00	No
ML18174	City of Bell	11/22/2019	7/21/2026		\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
ML18177	City of San Bernardino	6/7/2019	12/6/2026	12/6/2028	\$279,088.00	\$0.00	Purchase Medium- and Heavy-Duty Evs and	\$279,088.00	No
MS18009	Penske Truck Leasing Co., L.P.	8/8/2018	12/7/2020		\$82,500.00	\$0.00	Modify Maintenance Facility & Train Technici	\$82,500.00	No
MS18013	California Energy Commission				\$3,000,000.00	\$0.00	Advise MSRC and Administer Hydrogen Infr	\$3,000,000.00	No
MS18017	City of Banning				\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No
MS18018	City of Norwalk	6/8/2018	9/7/2019		\$75,000.00	\$0.00	Vehicle Maintenance Facility Modifications	\$75,000.00	No
MS18107	Huntington Beach Union High School				\$225,000.00	\$0.00	Expansion of Existing Infrastructure	\$225,000.00	No
MS18109	City of South Gate				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18111	Newport-Mesa Unified School Distric				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS18112	Banning Unified School District	11/29/2018	11/28/2024	11/28/2025	\$275,000.00	\$0.00	Install New CNG Infrastructure	\$275,000.00	No
MS18113	City of Torrance				\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No
MS18114	Los Angeles County Department of P	11/15/2019	11/14/2026		\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18116	Los Angeles County Department of P	11/15/2019	11/14/2026		\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18119	LBA Realty Company XI LP				\$100,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$100,000.00	No
MS18121	City of Montebello				\$70,408.00	\$0.00	Expansion of Existing CNG Infrastructure	\$70,408.00	No
MS18175	Regents of the University of Californi	6/7/2019	8/6/2025	8/6/2026	\$1,000,000.00	\$0.00	Expansion of Existing Hydrogen Station	\$1,000,000.00	No
MS18183	Nikola-TA HRS 1, LLC	9/28/2022	1/27/2030		\$1,660,000.00	\$0.00	Install Publicly Accessible Hydrogen Fueling	\$1,660,000.00	No
MS18184	Clean Energy				\$1,000,000.00	\$0.00	Install Publicly Accessible Hydrogen Fueling	\$1,000,000.00	No

Total: 29

Closed Cor	ntracts								
ML18019	City of Hidden Hills	5/3/2018	5/2/2022	5/2/2023	\$49,999.00	\$49,999.00	Purchase Two Light-Duty ZEVs and EVSE	\$0.00	Yes
ML18021	City of Signal Hill	4/6/2018	1/5/2022		\$49,661.00	\$46,079.31	Install EV Charging Stations	\$3,581.69	Yes
ML18022	City of Desert Hot Springs	5/3/2018	1/2/2020	1/2/2021	\$50,000.00	\$50,000.00	Traffic Signal and Synchronization Project	\$0.00	Yes
ML18034	City of Calabasas	6/8/2018	3/7/2022	3/7/2023	\$50,000.00	\$50,000.00	Install EVSE	\$0.00	Yes
ML18035	City of Westlake Village	8/8/2018	11/7/2022		\$50,000.00	\$50,000.00	Install EVSE	\$0.00	Yes
ML18040	City of Agoura Hills	7/13/2018	6/12/2022		\$17,914.00	\$17,914.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18042	City of San Fernando	6/28/2018	2/27/2024		\$10,000.00	\$10,000.00	Purchase 1 Light-Duty ZEV	\$0.00	Yes

0	<b>0</b>		Original End Date	Amended End Date	Contract Value	Demainte d	Project Description	Award Balance	Billing
Cont.#	Contractor	Start Date		Enu Date		Remitted	Project Description		Complete?
ML18049	City of Downey	7/6/2018	5/5/2023		\$148,260.00	\$148,116.32	Install EV Charging Stations	\$143.68	Yes
ML18052	City of Garden Grove	8/8/2018	10/7/2022		\$53,593.00	\$46,164.28	Purchase 4 L.D. ZEVs and Infrastructure	\$7,428.72	Yes
ML18054	City of La Habra Heights	8/8/2018	4/7/2022		\$9,200.00	\$9,200.00	Purchase 1 L.D. ZEV	\$0.00	Yes
ML18056	City of Chino	3/29/2019	9/28/2023		\$103,868.00	\$103,868.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18070	City of Lomita	11/29/2018	6/28/2022		\$6,250.00	\$6,250.00	Purchase 1 Light-Duty ZEV	\$0.00	Yes
ML18071	City of Chino Hills	9/7/2018	10/6/2022		\$20,000.00	\$20,000.00	Purchase 2 Light-Duty ZEVs	\$0.00	Yes
ML18076	City of Culver City Transportation De	10/5/2018	10/4/2023		\$1,130.00	\$1,130.00	Purchase Light-Duty ZEV	\$0.00	Yes
ML18077	City of Orange	11/2/2018	10/1/2022		\$59,776.00	\$59,776.00	Four Light-Duty ZEV and EV Charging Infras	\$0.00	Yes
ML18079	City of Pasadena	12/7/2018	11/6/2023		\$183,670.00	\$183,670.00	EV Charging Infrastructure	\$0.00	Yes
ML18086	City of Los Angeles Bureau of Street	2/8/2019	4/7/2023		\$300,000.00	\$300,000.00	Install Sixty EV Charging Stations	\$0.00	Yes
ML18088	City of Big Bear Lake	11/29/2018	8/28/2020	8/28/2021	\$50,000.00	\$50,000.00	Install Bicycle Trail	\$0.00	Yes
ML18090	City of Santa Clarita	5/9/2019	2/8/2023	2/8/2024	\$122,000.00	\$118,978.52	Install Nine EV Charging Stations	\$3,021.48	Yes
ML18097	City of Temple City	11/29/2018	7/28/2022		\$16,000.00	\$12,000.00	Purchase Two Light-Duty ZEVs	\$4,000.00	Yes
ML18126	City of Lomita	12/7/2018	1/6/2020		\$26,500.00	\$13,279.56	Install bicycle racks and lanes	\$13,220.44	Yes
ML18127	City of La Puente	2/1/2019	2/28/2023		\$10,000.00	\$7,113.70	Purchase Light-Duty Zero Emission Vehicle	\$2,886.30	Yes
ML18128	City of Aliso Viejo	8/30/2019	11/29/2023		\$65,460.00	\$65,389.56	Purchase Two Light-Duty ZEVs and Install S	\$70.44	Yes
ML18130	City of Lake Forest	3/1/2019	9/30/2022		\$106,480.00	\$106,480.00	Install Twenty-One EVSEs	\$0.00	Yes
ML18131	City of Los Angeles, Police Departm	5/3/2019	12/2/2022		\$19,294.00	\$19,294.00	Purchase Three Light-Duty ZEVs	\$0.00	Yes
ML18136	City of Orange	4/12/2019	8/11/2024		\$40,000.00	\$40,000.00	Purchase Four Light-Duty Zero Emission Ve	\$0.00	Yes
ML18138	City of La Canada Flintridge	2/8/2019	5/7/2023		\$32,589.00	\$32,588.07	Install Four EVSEs and Install Bicycle Racks	\$0.93	Yes
ML18139	City of Calimesa	8/30/2019	7/29/2020	11/29/2021	\$50,000.00	\$50,000.00	Install Bicycle Lane	\$0.00	Yes
ML18142	City of La Quinta	4/24/2019	2/23/2023	8/23/2023	\$51,780.00	\$51,780.00	Install Two EV Charging Stations	\$0.00	Yes
ML18154	City of Hemet	11/22/2019	9/21/2023	3/21/2024	\$30,000.00	\$30,000.00	Purchase Two Light-Duty ZEVs and EV Cha	\$0.00	Yes
ML18155	City of Claremont	7/31/2019	9/30/2023		\$35,609.00	\$35,608.86	Install EV Charging Infrastructure	\$0.14	Yes
ML18156	City of Covina	2/1/2019	3/31/2023	12/31/2023	\$63,800.00	\$62,713.00	Purchase Four Light-Duty ZEVs and EV Cha	\$1,087.00	Yes
ML18160	City of Irwindale	3/29/2019	12/28/2022		\$14,263.00	\$14,263.00	Purchase Two Light-Duty ZEVs	\$0.00	Yes
ML18173	City of Manhattan Beach	3/29/2019	2/28/2023		\$49,000.00	\$49,000.00	Purchase Two Light-Duty ZEVs and EV Cha	\$0.00	Yes
ML18179	City of Rancho Mirage	8/20/2021	2/19/2022		\$50,000.00	\$50,000.00	Traffic Signal Synchronization	\$0.00	Yes
MS18001	Los Angeles County MTA	6/29/2017	4/30/2018		\$807,945.00	\$652,737.07	Provide Clean Fuel Transit Service to Dodge	\$155,207.93	Yes
MS18002	Southern California Association of G	6/9/2017	11/30/2018	12/30/2021	\$2,500,000.00	\$2,276,272.46	Regional Active Transportation Partnership	\$223,727.54	Yes
MS18003	Geographics	2/21/2017	2/20/2021	6/20/2021	\$72,453.00	\$65,521.32	Design, Host and Maintain MSRC Website	\$6,931.68	Yes
MS18004	Orange County Transportation Autho	8/3/2017	4/30/2019		\$503,272.00	\$456,145.29	Provide Special Rail Service to Angel Stadiu	\$47,126.71	Yes
MS18005	Orange County Transportation Autho	1/5/2018	4/30/2019		\$834,222.00	\$834,222.00	Clean Fuel Bus Service to OC Fair	\$0.00	Yes
MS18006	Anaheim Transportation Network	10/6/2017	2/28/2020		\$219,564.00	\$9,488.22	Implement Anaheim Circulator Service	\$210,075.78	Yes
MS18008	Foothill Transit	1/12/2018	3/31/2019		\$100,000.00	\$99,406.61	Special Transit Service to LA County Fair	\$593.39	Yes
MS18010	Southern California Regional Rail Au	12/28/2017	7/31/2019		\$351,186.00	\$275,490.61	Implement Special Metrolink Service to Unio	\$75,695.39	Yes
MS18011	Southern California Regional Rail Au	2/9/2018	6/30/2018		\$239,565.00	\$221,725.12	Special Train Service to Festival of Lights	\$17,839.88	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18012	City of Hermosa Beach	2/2/2018	2/1/2024		\$36,000.00	\$36,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS18014	Regents of the University of Californi	10/5/2018	12/4/2019	3/4/2020	\$254,795.00	\$251,455.59	Planning for EV Charging Infrastructure Inve	\$3,339.41	Yes
MS18015	Southern California Association of G	7/13/2018	2/28/2021	11/30/2023	\$2,000,000.00	\$1,585,466.77	Southern California Future Communities Par	\$414,533.23	Yes
MS18016	Southern California Regional Rail Au	1/10/2019	3/31/2019		\$87,764.00	\$73,140.89	Special Train Service to Auto Club Speedwa	\$14,623.11	Yes
MS18023	Riverside County Transportation Co	6/28/2018	6/27/2021	3/31/2023	\$500,000.00	\$500,000.00	Weekend Freeway Service Patrols	\$0.00	Yes
MS18025	Los Angeles County MTA	11/29/2018	5/31/2019		\$1,324,560.00	\$961,246.86	Special Bus and Train Service to Dodger Sta	\$363,313.14	Yes
MS18102	Orange County Transportation Autho	10/4/2019	5/31/2020		\$1,146,000.00	\$1,146,000.00	Implement OC Flex Micro-Transit Pilot Proje	\$0.00	Yes
MS18103	Orange County Transportation Autho	2/8/2019	9/7/2020		\$642,000.00	\$613,303.83	Install Hydrogen Detection System	\$28,696.17	Yes
MS18104	Orange County Transportation Autho	2/21/2020	3/31/2021	3/31/2022	\$212,000.00	\$165,235.92	Implement College Pass Transit Fare Subsi	\$46,764.08	Yes
MS18105	Southern California Regional Rail Au	1/10/2019	6/30/2019		\$252,696.00	\$186,830.04	Special Train Service to the Festival of Light	\$65,865.96	Yes
MS18180	Omnitrans	8/4/2022	8/3/2023		\$83,000.00	\$75,000.00	Modify Vehicle Maintenance Facility and Trai	\$8,000.00	Yes
Total: 55	· · · · · · · · · · · · · · · · · · ·			1			L L		
Closed/Inco	omplete Contracts								
ML18083	City of San Fernando	11/2/2018	11/1/2022		\$20,000.00	\$0.00	Implement Traffic Signal Synchronization	\$20,000.00	No
ML18093	City of Monterey Park	2/1/2019	2/28/2026	10/31/2028	\$25,000.00	\$0.00	Purchase Heavy-Duty Near-ZEV	\$25,000.00	No
ML18129	City of Yucaipa	12/14/2018	3/13/2023	9/13/2027	\$63,097.00	\$0.00	Install Six EV Charging Stations	\$63,097.00	No
ML18133	City of Rancho Mirage	12/7/2018	11/6/2020		\$50,000.00	\$0.00	Traffic Signal Synchronization	\$50,000.00	No
ML18137	City of Wildomar	3/1/2019	5/31/2021	12/1/2022	\$50,000.00	\$0.00	Install Bicycle Trail	\$50,000.00	No
ML18167	City of Beverly Hills	3/29/2019	6/28/2025		\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$50,000.00	No
ML18168	City of Maywood	3/29/2019	11/28/2022		\$7,059.00	\$0.00	Purchase EV Charging Infrastructure	\$7,059.00	No
MS18026	Omnitrans	10/5/2018	1/4/2020		\$83,000.00	\$0.00	Modify Vehicle Maintenance Facility and Trai	\$83,000.00	No
MS18118	City of Beverly Hills	3/29/2019	7/28/2025		\$85,272.00	\$0.00	Expansion of Existing CNG Infrastructure	\$85,272.00	No
Total: 9									
Open/Com	olete Contracts								
ML18020	City of Colton	5/3/2018	4/2/2024	4/2/2027	\$67,881.00	\$67,881.00	Purchase One Medium-Duty and One Heavy	\$0.00	Yes
ML18028	City of Artesia	6/28/2018	3/27/2025		\$50,000.00	\$50,000.00	Install EVSE	\$0.00	Yes
ML18030	City of Grand Terrace	6/28/2018	3/27/2022	3/27/2025	\$45,000.00	\$45,000.00	Install EVSE	\$0.00	Yes
ML18032	City of Arcadia	2/1/2019	4/30/2025		\$24,650.00	\$24,650.00	Purchase 1 Heavy-Duty Near-ZEV	\$0.00	Yes
ML18033	City of Duarte	8/8/2018	2/7/2025		\$50,000.00	\$50,000.00	Purchase 1-HD ZEV	\$0.00	Yes
ML18036	City of Indian Wells	8/8/2018	5/7/2023	5/7/2026	\$50,000.00	\$50,000.00	Install EV Charging Stations	\$0.00	No
ML18037	City of Westminster	6/28/2018	6/27/2024	12/27/2026	\$120,900.00	\$120,900.00	Install EVSE, Purchase up to 3-LD ZEV & 1-	\$0.00	Yes
ML18038	City of Anaheim	10/5/2018	5/4/2025	5/4/2026	\$151,630.00	\$147,883.27	Purchase 5 Light-Duty ZEVs and Install EVS	\$3,746.73	Yes
ML18039	City of Redlands	6/28/2018	7/27/2024	1/27/2025	\$63,191.00	\$63,190.33	Purchase 1 Medium/Heavy-Duty ZEV and In	\$0.67	Yes
ML18041	City of West Hollywood	8/8/2018	12/7/2023	6/7/2024	\$50,000.00	\$50,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18043	City of Yorba Linda	9/7/2018	12/6/2023	12/6/2024	\$87,990.00	\$87,990.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18045	City of Culver City Transportation De	6/28/2018	6/27/2025		\$51,000.00	\$51,000.00	Purchase Eight Near-Zero Vehicles	\$0.00	Yes
ML18046	City of Santa Ana - Public Works Ag	11/9/2018	7/8/2026		\$359,591.00	\$359,590.75	Purchase 6 Light-Duty ZEVs, 9 Heavy-Duty	\$0.25	Yes

Comt #	Contractor	Ctart Data	Original End Date	Amended End Date	Contract Value	Dom:tto d	Designt Description	Award Balance	Billing
Cont.#	Contractor City of Whittier	Start Date				Remitted	Project Description		Complete?
ML18047	-	8/8/2018	4/7/2026	1/7/2029	\$113,910.00	\$113,910.00	Purchase 5 Heavy-Duty Near-Zero Emission	\$0.00	No
ML18048	City of Lynwood	6/28/2018	10/27/2024	4/04/0000	\$93,500.00	\$44,505.53	Purchase Up to 3 Medium-Duty Zero-Emissi	\$48,994.47	Yes
ML18059	City of Glendale Water & Power	2/1/2019	7/31/2026	1/31/2028	\$260,500.00	\$232,315.70	Install Electric Vehicle Charging Infrastructur	\$28,184.30	No
ML18061	City of Moreno Valley	4/9/2019	2/8/2025		\$25,000.00	\$25,000.00	Purchase 1 Heavy-Duty Near-ZEV	\$0.00	Yes
ML18062	City of Beaumont	8/8/2018	9/7/2024	4/00/0000	\$25,000.00	\$25,000.00	Purchase 1 Heavy-Duty Near-ZEV	\$0.00	Yes
ML18064	City of Eastvale	11/29/2018	4/28/2026	4/28/2029	\$80,400.00	\$61,462.40	Purchase 2 Light-Duty, One Medium-Duty, Z	\$18,937.60	No
ML18072	City of Anaheim	12/18/2018	11/17/2026		\$239,560.00	\$239,560.00	Purchase 9 Light-Duty ZEVs & 2 Med/Hvy-D	\$0.00	Yes
ML18074	City of Buena Park	12/14/2018	6/13/2026		\$107,960.00	\$107,960.00	EV Charging Infrastructure	\$0.00	Yes
ML18080	City of Santa Monica	1/10/2019	12/9/2023	9/9/2025	\$44,289.00	\$44,288.92	Install EV Charging Stations	\$0.08	Yes
ML18081	City of Beaumont	10/5/2018	10/4/2022	10/4/2025	\$31,870.00	\$31,870.00	EV Charging Infrastructure	\$0.00	Yes
ML18085	City of Orange	4/12/2019	10/11/2026		\$50,000.00	\$50,000.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$0.00	Yes
ML18087	City of Murrieta	3/29/2019	3/28/2025		\$143,520.00	\$143,520.00	Install Four EV Charging Stations	\$0.00	Yes
ML18089	City of Glendora	7/19/2019	4/18/2025	10/18/2028	\$50,760.00	\$50,760.00	Purchase a Heavy-Duty ZEV	\$0.00	Yes
ML18091	City of Temecula	1/19/2019	7/18/2023	3/18/2026	\$111,575.00	\$111,574.46	Install EV Charging Stations	\$0.54	No
ML18094	City of Laguna Woods	7/12/2019	12/11/2024	10/11/2026	\$50,000.00	\$50,000.00	Install Two EV Charging Ports	\$0.00	Yes
ML18095	City of Gardena	11/9/2018	12/8/2024		\$25,000.00	\$25,000.00	Purchase Heavy-Duty Near-ZEV	\$0.00	Yes
ML18096	City of Highland	12/13/2019	8/12/2024		\$10,000.00	\$9,918.84	Purchase Light-Duty Zero Emission Vehicle	\$81.16	Yes
ML18098	City of Redondo Beach	2/1/2019	3/31/2023	3/31/2025	\$89,400.00	\$89,400.00	Install Six EV Charging Stations	\$0.00	Yes
ML18099	City of Laguna Hills	3/1/2019	5/31/2023	9/30/2024	\$32,250.00	\$32,250.00	Install EV Charging Stations	\$0.00	Yes
ML18100	City of Brea	10/29/2020	12/28/2024	12/31/2025	\$56,500.00	\$56,500.00	Install Twenty-Four Level II EV Charging Sta	\$0.00	Yes
ML18101	City of Burbank	2/1/2019	4/30/2024	10/30/2024	\$137,310.00	\$137,310.00	Install Twenty EV Charging Stations	\$0.00	No
ML18132	City of Montclair	4/5/2019	9/4/2023	9/4/2026	\$40,000.00	\$40,000.00	Install Eight EV Chargers	\$0.00	Yes
ML18141	City of Rolling Hills Estates	2/14/2020	1/13/2024	4/13/2026	\$40,000.00	\$40,000.00	Purchase One Light-Duty ZEV and Install Se	\$0.00	Yes
ML18143	City of La Habra	10/18/2019	9/17/2025	9/17/2027	\$80,700.00	\$80,700.00	Install Two EV Charging Stations	\$0.00	Yes
ML18144	City of Fontana Public Works	10/4/2019	12/3/2023	12/31/2025	\$269,090.00	\$269,090.00	Install Twelve EVSEs	\$0.00	No
ML18146	City of South Gate	3/1/2019	11/30/2023	11/30/2026	\$127,400.00	\$127,400.00	Purchase Five Light-Duty ZEVs and Install S	\$0.00	No
ML18157	City of Los Angeles Bureau of Street	6/21/2019	5/20/2027		\$85,000.00	\$85,000.00	Purchase One Medium-Duty ZEV	\$0.00	Yes
ML18159	City of Rialto	12/13/2019	5/12/2024	9/19/2025	\$135,980.00	\$106,597.86	Purchase Nine Light-Duty ZEVs and EV Cha	\$29,382.14	No
ML18161	City of Indio	5/3/2019	10/2/2025		\$25,000.00	\$25,000.00	Purchase 1 Light-Duty Zero Emission and E	\$0.00	Yes
ML18162	City of Costa Mesa	1/10/2020	7/9/2026		\$148,210.00	\$148,210.00	Purchase Three Light-Duty ZEVs and EV Ch	\$0.00	Yes
ML18163	City of San Clemente	3/8/2019	12/7/2024	12/7/2025	\$75,000.00	\$70,533.75	Purchase Three Light-Duty ZEVs and EV Ch	\$4,466.25	Yes
ML18169	City of Alhambra	6/14/2019	8/13/2024		\$111,980.00	\$111,980.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18170	City of Laguna Niguel	1/10/2020	8/9/2028		\$75,100.00	\$75,100.00	Purchase One Light-Duty ZEV and EV Char	\$0.00	No
ML18171	City of El Monte	3/1/2019	4/30/2025		\$68,079.00	\$68,077.81	Purchase One Heavy-Duty ZEVs and EV Ch	\$1.19	Yes
ML18176	City of Coachella	3/1/2019	11/30/2024		\$58,020.00	\$58,020.00	Install EV Charging Stations	\$0.00	Yes
MS18066	El Dorado National	12/6/2019	2/5/2026		\$100,000.00	\$100,000.00	Install New Limited-Access CNG Station	\$0.00	Yes
MS18073	Los Angeles County MTA	1/10/2019	2/9/2026		\$2,000,000.00	\$2,000,000.00	Purchase 40 Zero-Emission Transit Buses	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18108	Capistrano Unified School District	2/1/2019	5/30/2025	9/30/2026	\$111,750.00	\$111,750.00	Expansion of Existing Infrastructure	\$0.00	Yes
MS18110	Mountain View Unified School Distric	2/1/2019	3/31/2025		\$61,748.00	\$61,747.29	Install New Limited-Access CNG Infrastructu	\$0.71	No
MS18115	City of Commerce	6/7/2019	12/6/2025	7/6/2026	\$275,000.00	\$275,000.00	Expansion of Existing L/CNG Infrastructure	\$0.00	No
MS18117	City of San Bernardino	6/7/2019	11/6/2025		\$240,000.00	\$240,000.00	Expansion of Existing CNG Infrastructure/Me	\$0.00	Yes
MS18120	City of Redondo Beach	2/1/2019	9/30/2025		\$275,000.00	\$275,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes
MS18122	Universal Waste Systems, Inc.	2/1/2019	3/31/2025	7/31/2027	\$195,000.00	\$195,000.00	Install New Limited Access CNG Infrastructu	\$0.00	Yes
MS18123	City Rent A Bin DBA Serv-Wel Dispo	12/14/2018	2/13/2025		\$200,000.00	\$200,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes
MS18124	County Sanitation Districts of Los An	7/31/2019	2/28/2027		\$275,000.00	\$275,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes
MS18125	U.S. Venture	5/9/2019	8/8/2025		\$200,000.00	\$200,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes

#### Total: 59

Terminated	l Contracts								
ML18058	City of Perris	10/12/2018	11/11/2024	11/11/2028	\$94,624.00	\$0.00	Purchase 1 Medium-Duty ZEV and EV Char	\$94,624.00	No
MS18029	Irvine Ranch Water District	8/8/2018	10/7/2024	1/7/2029	\$185,000.00	\$0.00	Install New Limited Access CNG Station & T	\$185,000.00	No

Total: 2

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2018	3-2021 Contracts								
<b>Open Cont</b>	racts								
MS21002	Better World Group Advisors	11/1/2019	12/31/2022	12/31/2024	\$448,154.00	\$228,550.60	Programmatic Outreach Services	\$219,603.40	No
MS21005	Southern California Association of G	5/5/2021	1/31/2024	7/31/2025	\$16,751,000.00	\$342,085.88	Implement Last Mile Goods Movement Progr	\$16,408,914.12	No
MS21006	Geographics	4/1/2021	6/20/2023	6/20/2025	\$20,152.00	\$15,710.25	Hosting & Maintenance of the MSRC Websit	\$4,441.75	No
MS21009	ITS Technologies & Logistics, LLC	7/15/2022	7/14/2028	7/14/2029	\$1,686,900.00	\$168,690.00	Deploy 12 Zero-Emission Yard Tractors	\$1,518,210.00	No
MS21010	MHX, LLC	9/29/2021	1/28/2028	7/28/2029	\$569,275.00	\$0.00	Deploy One Zero-Emission Overhead Crane	\$569,275.00	No
MS21015	Premium Transportation Services, In	9/22/2021	5/21/2027	1/2/2028	\$1,500,000.00	\$1,334,758.50	Deploy up to 15 Near-Zero Emissions Truck	\$165,241.50	No
MS21016	Ryder Integrated Logistics, Inc.	12/7/2022	4/6/2029		\$3,169,746.00	\$0.00	Procure Two Integrated Power Centers and	\$3,169,746.00	No
MS21018	Pac Anchor Transportation, Inc.	8/17/2021	8/16/2027	8/16/2028	\$2,100,000.00	\$1,890,000.00	Deploy up to 21 Near Zero Emission Trucks	\$210,000.00	No
MS21019	Volvo Financial Services	3/31/2022	3/30/2030	12/30/2030	\$3,930,270.00	\$2,095,869.15	Lease up to 14 Zero-Emission Trucks and P	\$1,834,400.85	No
MS21023	BNSF Railway Company	4/22/2022	4/21/2028	4/21/2029	\$1,313,100.00	\$0.00	Install EV Charging Infrastructure	\$1,313,100.00	No
Total: 10						<u>.</u>			
Declined/C	ancelled Contracts								
MS21008	CMA CGM (America) LLC				\$3,000,000.00	\$0.00	Deploy 2 Zero-Emission Rubber Tire Gantry	\$3,000,000.00	No
MS21011	RDS Logistics Group	1/21/2022	7/20/2028		\$808,500.00	\$0.00	Deploy 3 Zero-Emission Yard Tractors and	\$808,500.00	No
MS21012	Amazon Logistics, Inc.				\$4,157,710.00	\$0.00	Deploy up to 10 Zero-Emission and 100 Nea	\$4,157,710.00	No
MS21020	Sea-Logix, LLC				\$2,300,000.00	\$0.00	Deploy up to 23 Near-Zero Emssions Trucks	\$2,300,000.00	No
MS21021	CMA CGM (America) LLC				\$1,946,463.00	\$0.00	Deploy up to 13 Near Zero Emission Trucks	\$1,946,463.00	No
MS21022	Orange County Transportation Autho				\$289,054.00	\$0.00	Implement Special Transit Service to the Or	\$289,054.00	No
Total: 6									
<b>Closed</b> Cor	ntracts								
MS21001	Los Angeles County MTA	8/30/2019	7/29/2020		\$613,752.87	\$613,752.87	Implement Special Transit Service to Dodge	\$0.00	Yes
MS21003	Orange County Transportation Autho	7/8/2020	5/31/2021		\$468,298.00	\$241,150.48	Provide Express Bus Service to the Orange	\$227,147.52	Yes
MS21004	Los Angeles County MTA	1/7/2021	5/31/2023		\$814,822.00	\$326,899.00	Clean Fuel Bus Service to Dodger Stadium	\$487,923.00	Yes
Total: 3									
Open/Com	olete Contracts								
MS21007	Penske Truck Leasing Co., L.P.	4/1/2022	3/31/2028		\$957,813.00	\$957,812.40	Deploy 5 Zero-Emission Yard Tractors	\$0.60	Yes
MS21013	4 Gen Logistics	3/27/2022	5/26/2028		\$7,000,000.00	\$7,000,000.00	Deploy 40 Zero Emission Trucks	\$0.00	Yes
MS21014	Green Fleet Systems, LLC	8/31/2021	8/30/2027	8/30/2028	\$300,000.00	\$300,000.00	Deploy up to 3 Near Zero Emission Trucks	\$0.00	Yes
MS21017	MHX, LLC	9/29/2021	9/28/2030		\$1,900,000.00	\$1,900,000.00	Deploy up to 10 Zero-Emission Trucks & Infr	\$0.00	No
MS21025	Costco Wholesale Corporation	12/9/2022	12/8/2028		\$160,000.00	\$160,000.00	Install Five EV Charging Units	\$0.00	Yes
Total: 5									

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 202	1-2024 Contracts								
Open Cont	racts								
MS24001	Los Angeles County MTA	1/26/2023	5/31/2028		\$1,200,248.00	\$0.00	Provide Clean Fuel Bus Service to Dodger S	\$1,200,248.00	No
MS24002	South Pasadena Police Department	1/16/2024	5/15/2030		\$499,789.00	\$0.00	Procure Zero-Emission Vehicles and Infrastr	\$499,789.00	No
MS24003	Omnitrans	4/15/2024	10/30/2025		\$315,278.00	\$0.00	Bloomington Microtransit Service Expansion	\$315,278.00	No
MS24004	City of Seal Beach	12/21/2023	9/30/2025		\$162,891.00	\$0.00	Circuit Transit Shared Mobility	\$162,891.00	No
MS24005	City of Huntington Beach	7/1/2024	9/1/2026		\$279,186.00	\$0.00	Circuit Transit Rideshare Program	\$279,186.00	No
MS24006	Anaheim Transportation Network	10/12/2023	5/31/2025		\$322,000.00	\$0.00	Old Towne Orange Microtransit Service	\$322,000.00	No
MS24007	City of Gardena	6/12/2024	8/31/2026		\$424,134.00	\$0.00	Gtrans Microtransit Service	\$424,134.00	No
MS24008	City of Long Beach	3/19/2024	1/31/2026		\$410,734.00	\$0.00	Circuit Transit Mobility Transit Expansion Pr	\$410,734.00	No
Total: 8								·	
Pending E	Recution Contracts								
MS24010	Penske Truck Leasing Co., L.P.				\$17,980,000.00	\$0.00	Partner on Application to Install EV Charging	\$17,980,000.00	No
MS24011	Southern California Gas Company				\$6,000,000.00	\$0.00	Partner on Application to Install Hydrogen F	\$6,000,000.00	No
MS24012	Pilot Travel Center, LLC				\$3,000,000.00	\$0.00	Partner on Application to Install Hydrogen F	\$3,000,000.00	No
MS24013	Los Angeles Cleantech Incubator				\$3,000,000.00	\$0.00	Implement Drayage Truck Recharging Facilit	\$3,000,000.00	No
MS24999	Prologis Mobility				\$11,679,171.00	\$0.00	Implement EV Charging and Hydrogen Refu	\$11,679,171.00	No
									-

Total: 5



# AB2766 Discretionary Fund Program Invoices

7/25/24 to 8/28/24

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount
2014-	2016 Work Prog	gram					
8/16/2024				MS16121	Long Beach Transit	RC Reten_T`	\$30,000.00
8/15/2024	8/15/2024	8/20/2024	8/20/2024	ML16039	City of Torrance Transit Department	024-0015159	\$27,391.57
Total: \$57,39 <sup>4</sup>	Total: \$57,391.57						
2016-	2018 Work Prog	Iram					
8/13/2024	8/15/2024	8/15/2024	8/19/2024	ML18094	18094 City of Laguna Woods		\$50,000.00
Total: \$50,000	).00						
2018-	2021 Work Prog	<i>gram</i>					
8/14/2024	8/15/2024	8/22/2024		MS21005	Southern California Association of Governments	/IS21005C-0€	\$70,000.00
8/14/2024	8/15/2024	8/16/2024	8/19/2024	MS21005	Southern California Association of Governments	/IS21005C-0!	\$70,000.00
8/14/2024	8/15/2024	8/16/2024		MS21005	Southern California Association of Governments //S21005C-		\$70,000.00
8/2/2024	8/2/2024	8/14/2024		MS21006	Geographics 24-23756		\$373.00
7/25/2024	8/2/2024	8/6/2024		MS21002	Better World Group Advisors WG-MSRC5		\$4,562.25

Total: \$214,935.25

Total This Period: \$322,326.82



# **MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE THURSDAY, APRIL 18, 2024 MEETING MINUTES**

21865 Copley Drive, Diamond, Bar, CA 91765

#### **MEMBERS PRESENT:**

Chair Larry McCallon, representing San Bernardino County Transportation Authority (SBCTA) William Robertson, representing California Air Resources Board (CARB) Curt Hagman, representing South Coast AQMD

Patrick Harper, representing Orange County Transportation Authority (OCTA)

Rena Lum (Alt.), representing Los Angeles County Metropolitan Transportation Authority (Metro)

Mark Henderson representing Southern California Association of Governments (SCAG)

Linda Krupa (Alt.), representing RCTC

#### **MEMBERS ABSENT:**

(Vice-Chair) Brian Berkson, representing Riverside County Transportation Commission (RCTC) Cindy Allen (Alt.), representing SCAG Steve Veres, representing Metro John Dutrey (Alt.), representing SBCTA Peter Christensen (Alt), representing CARB

#### **MSRC-TAC MEMBERS PRESENT:**

Scott Strelecki, representing SCAG Joe Alcock, representing Cities of Orange County

#### **OTHERS PRESENT:**

Kimberly Young, City of Fontana Katrina Kunkel, City of Yucaipa Dan Penoyer Sam Emmersen, Better World Group Ryan Laws, SCAG Moses Huert, City of Paramount Kirk Vyravan

#### SOUTH COAST AQMD STAFF & CONTRACTORS PRESENT:

Aaron Katzenstein, Deputy Executive Officer Cynthia Ravenstein, MSRC Contracts Administrator Daphne Hsu, Principal Deputy District Counsel Karen Sandoval, Financial Analyst Kristin Remy, Sr. Administrative Assistant Lane Garcia, Program Supervisor Laura Dunlap, Contractor Laurence Brown, Air Quality Specialist Maria Allen, Administrative Assistant Ray Gorski, MSRC Technical Advisor-Contractor Sindy Enriquez, MSRC Contracts Assistant

#### CALL TO ORDER

- Chair McCallon called the meeting to order at 2:03 p.m.
- Roll call was taken at the start of the meeting
- Chair McCallon asked for disclosures.

Items Nos. 1 and 6 – MSRC Member Curt Hagman said he does not have a financial interest in Item No. 1 but is required to identify for the record that he is a member of the Board of Supervisors for San Bernardino County and a member of the Board of Directors for the San Bernardino County Transportation Authority, which are involved in this item. In addition, he does not have a financial interest in Item Nos. 1 and 6, but he is required to identify for the record that he is a Regional Council Member for SCAG, which is involved in the item.

Chair McCallon said that he has the same disclosure statement as Hagman, except for the Supervisor part.

MSRC Member Mark Henderson said for Items No. 1 and 6, he does not have a financial interest but is required to identify for the record that he is a Regional Council Member for SCAG, which is involved in these items.

Item No. 8 – MSRC Alternate Member Rena Lum said she does not have a financial interest but is required to identify for the record that she is an employee for the Los Angeles County Metropolitan Transportation Authority, which is involved in this item. Item Nos. 1 and 6 – MSRC Alternate Member Linda Krupa said she does not have a financial for Item No. 1 but is required to identify for the record that she is a Commissioner for the Riverside County Transportation Commission, which is involved in this item. In addition, she does not have a financial interest in Items Nos. 1 and 6 but is required to identify for the record that she is a Regional Council Member for SCAG, which is involved in this item.

# **CONSENT ITEMS (Items 1 through 5):**

# **Receive and Approve**

# 1. Summary of Final Reports by MSRC Contractors

- Southern California Association of Governments, Contract #MS18015 (\$2,000,000 – Southern California Future Communities Partnership Program) •
- Riverside County Transportation Commission, Contract #MS16094 (\$1,909,241
   Metrolink First Mile/Last Mile Mobility Strategies)
- MHX, LLC, Contract #MS21017 (\$1,900,000 Deploy Zero-Emission Trucks & Infrastructure)
- San Bernardino County Transportation Authority, Contract #MS14072 (\$1,235,500 Implement Traffic Signal Synchronization Projects)

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallonNoes:None

Action: No further action is required.

# Information Only – Receive and File

# 2. MSRC Contracts Administrator's Report

The MSRC AB 2766 Contracts Administrator's Report for February 29, 2024 through March 27, 2024 was included in the agenda package.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes: Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallon Noes: None

Action: Staff will include the MSRC Contracts Administrator's Report in the MSRC Committee Report for the May 2024 South Coast AQMD Board meeting.

#### 3. Financial Report on AB 2766 Discretionary Fund

A financial report on the AB2766 Discretionary Fund for March 2024 was included in the agenda package.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallonNoes:None

Action: No further action is required.

#### 4. Report on Outreach Activities

The summary provided a summary of outreach, communications and policy activities undertaken by the Better World Group on behalf of MSRC for Winter 2024.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallonNoes:NoneAction:No further action is required.

5. Consider Modified Scope and One-Year Term Extension by City of Rancho Cucamonga, Contract #ML18051 (\$91,500 – Purchase 6 Light-duty ZEVs and Install EV Charging Infrastructure.

The City of Rancho Cucamonga requests to install (3) limited access Level II charging stations, (3) publicly accessible Level II charging stations and (2) publicly accessible Level III rest Charge" stations instead of (3) limited access Level II charging stations and (5) publicly accessible Level II charging stations. The City also requests a one-year term extension due to delays associated with procuring the necessary transformer and switchgear. This contract has been previously extended by 18 months.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallonNoes:NoneAction:MSRC will amend the contract accordingly.

#### For Approval – As Recommended

#### 6. Consider Reallocation and Reservation of Funding and Modification to Program Guidelines by Southern California Association of Governments (SCAG), Contract #MS21005

Cynthia Ravenstein, MSRC Contracts Administrator, said this contract with SCAG is for \$16.7 million for a total of 23 projects, one of which is recommended for elimination. Some of the projects have finished and MSRC has paid \$132,000. SCAG is requesting an exemption to the 60-day request submission policy and to aggregate and reserve some returned funds. 3 out of the 23 projects withdrew, totaling \$225,000. Additionally, SCAG is recommending that \$1,192,043 originally awarded to Gonzalez Logistics Inc. (GLI) be relocated due to GLI's loss of the bulk of their co-funding. SCAG requests that this funding, along with the \$225,000 from the withdrawn projects, be reserved for a reallocation request to be brought forward by SCAG for consideration at a future meeting. Cynthia recommends that there be a condition that the allocation request by submitted by 04/22/2024.

MSRC Member Hagman asked what is the alternative if we take back the funds, what will MSRC spend it on?

Ravenstein replied that the funds would go back to MSRC's Discretionary fund.

MSRC Member Robertson asked how much work is involved in simply reallocating within the existing contract versus holding up millions of dollars for a new contract out of the discretionary fund.

Ravenstein replied that if you work within an existing contract you can generally achieve results sooner.

Harper asked if SCAG has a contingent project lined up.

Ravenstein replied that they have options, and are figuring out what the best project will be.

Harper asked if they are truck or infrastructure projects.

Ravenstein replied that for the MSRC to be involved, there will definitely be associated emission reductions.

Chair McCallon asked for public comment.

No public comment.

Moved by Harper, seconded by Hagman; item unanimously approved.

Ayes:Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallonNoes:NoneAction:MSRC will amend the contract accordingly.

#### 7. Consider Proposed RFP for MSRC Programmatic Outreach Services

Cynthia Ravenstein, Contracts Administrator, said the MSRC has retained a consultant to help promote its programs and provide outreach assistance to project implementers. The current contract is expiring December 31, 2024. An RFP has been drafted, similar to the last RFP from 2019, which would have an initial three-year term with a two-year option period. There is no set dollar amount, but the expected range is \$240,000 to \$300,000. Proposals would be due June 19, 2024.

Chair McCallon asked whether this would be a time and materials contract. Ravenstein replied essentially yes.

Chair McCallon asked for public comment.

No public comment.

Moved by Hagman; seconded by Robertson; item unanimously approved.

Ayes:Hagman, Henderson, Harper, Lum, Robertson, Krupa, McCallonNoes:None

Action: The RFP will be placed on the May 2024 South Coast AQMD Board agenda for final approval.

# 8. FY2021-'24 Work Program Close Out – Setting the Stage for FY 2025 and Beyond

Ray Gorski, MSRC Technical Advisor, said an outstanding item is the working relationship Metro. In January 2024, MSRC unanimously approved a cooperative agreement between MSRC and Metro with the intent that MSRC staff would put together a joint program co-funded by LA Metro and MSRC. This would entail zero emission infrastructure to support heavy duty trucks and goods movement along the I-710 corridor. To date, the document has not been executed, and MSRC staff and Metro have been unable to initiate the process to have the program developed. Once the MOU is signed, this program will move into the next Work Program.

Harper asked what is the reason the agreement has not been signed, and Chair McCallon asked what is the process to get it signed.

Ravenstein replied that it is waiting for the Board chair to sign it. (After the meeting,

Ravenstein discovered the Board chair had already signed the agreement.)

Gorski presented that the other item that needs closure is that the San Pedro Bay Ports are willing partners with the MSRC to implement zero emission heavy duty infrastructure to support the drayage fleet. The MOU would allow the Ports to make an investment into the MSRC program.

Chair McCallon expressed his disappointment that this project has not moved forward and said if there are any roadblocks that need to be addressed to let him know.

Gorski presented the new 2025 Work Program.

MSRC Alternate Linda Krupa asked how the value of the work plan is determined to be \$80 million.

Gorski replied that the MSRC has adopted 3-year programs in the past (\$16.5 million revenues annually and adding on the current unallocated Discretionary Funds).

MSRC Member Hagman stated that we should set a goal for September for the new Work Program, and we'll get an update in the summer to possibly delay it depending on progress/workload.

Chair McCallon asked for public comment.

No public comment.

#### **OTHER BUSINESS:**

No other business

#### **PUBLIC COMMENT PERIOD**

No public comments.

#### **ADJOURNMENT**

The meeting adjourned at 2:45 p.m.

#### NEXT MEETING

Thursday, May 16<sup>th</sup> at 2:00 p.m.

[Prepared by Kristin Remy]



#### MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE THURSDAY, MAY 16, 2024 MEETING MINUTES 21865 Copley Drive, Diamond, Bar, CA 91765

#### MEMBERS PRESENT:

(Chair) Larry McCallon, representing San Bernardino County Transportation Authority (SBCTA)(Vice-Chair) Brian Berkson, representing Riverside County Transportation

Commission (RCTC) William Robertson, representing California Air Resources Board (CARB)

Linda Krupa, representing Regional Rideshare Agency

Patrick Harper, representing Orange County Transportation Authority (OCTA)

Rena Lum (Alt.), representing Los Angeles County Metropolitan Transportation Authority (Metro)

Mark Henderson, representing Southern California Association of Governments (SCAG)

#### **MEMBERS ABSENT:**

Curt Hagman, representing SCAQMD Cindy Allen (Alt.), representing SCAG Steve Veres, representing Metro John Dutrey (Alt.), representing SBCTA Peter Christensen (Alt.), representing CARB

#### **MSRC-TAC MEMBERS PRESENT:**

Scott Strelecki (Alt.), representing SCAG

#### **OTHERS PRESENT:**

John King, City of Paramount Sam Emmersen, Better World Group Lauren Dunlap Moses Huerta, City of Paramount

#### SOUTH COAST AQMD STAFF & CONTRACTORS PRESENT:

Chris Yu, Assistant Air Quality Specialist Cynthia Ravenstein, MSRC Contracts Administrator Daphne Hsu, Principal Deputy District Counsel Debra Ashby, Sr. Public Affairs Specialist Ghislain Muberwa, Information Technology Specialist Karen Sandoval, Financial Analyst Maria Allen, Administrative Assistant Marjorie Eaton, Administrative Assistant Ray Gorski, MSRC Technical Advisor-Contractor Sindy Enriquez, MSRC Contracts Assistant Tom Lee, Planning & Rules Manager

# CALL TO ORDER

- Chair McCallon called the meeting to order at 2:00 p.m.
- Roll call was taken at the start of the meeting.
- Election of Chair and Vice Chair By policy this election is to be done in May of each year. MSRC Chair or Vice Chair must be either elected officials and/or voting members of the board for the agency that individual is representing and they cannot be the South Coast AQMD or California Resources Board representative. Those elected will assume their offices next month.

For the record this vote is to continue the Chairmanship of Larry McCallon and to continue the Vice-Chairmanship of Brian Berkson. Roll call vote taken.

Ayes: Krupa, Henderson, Lum, Robertson, Berkson, McCallon Noes: None Larry McCallon will continue as Chair and Brian Berkson will continue as Vice-Chair.

• Photographs were viewed of MSRC day at a Dodger game including a still of the first pitch by Vice Chair Berkson.

MSRC member Patrick Harper arrived at 2:08 p.m.

• Chair McCallon asked for public comment on the Consent Calendar.

No public comment.

# **CONSENT ITEMS (Items 1 through 5):**

#### **Receive and Approve**

#### 1. Minutes of March 21, 2024 MSRC Meeting

The March 21, 2024 MSRC meeting minutes were included in the agenda package.

Moved by Harper; seconded by Henderson; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes: Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallon
Noes: None
Action: Staff will include the MSRC minutes with the MSRC Committee Report for the June 2024 South Coast AQMD Board meeting.

# **Information Only – Receive and File**

#### 2. MSRC Contracts Administrator's Report

The MSRC AB 2766 Contracts Administrator's Report for March 28 through April 24, 2024 was included in the agenda package.

Moved by Harper; seconded by Henderson; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes: Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallon

Noes: None

Action: Staff will include the MSRC Contracts Administrator's Report in the MSRC Committee Report for the June 2024 South Coast AQMD Board meeting.

#### 3. Financial Report on AB 2766 Discretionary Fund

A financial report on the AB2766 Discretionary Fund for April 2024 was included in the agenda package.

Moved by Harper; seconded by Henderson; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallonNoes:None

Action: No further action is required.

4. Consider 18-Month Term Extension by Air Products and Chemicals Inc., Contract #MS18182 (\$1,000,000- Install Hydrogen Refueling Station in Paramount)

The proposed hydrogen refueling station is part of a larger project at the site to produce transportation products, including sustainable aviation fuel (SAF). This larger project is still undergoing replanning efforts, and the project team has asked that any other activity, including the permitting for the hydrogen station, be delayed until the SAF project is finalized. Therefore, Air Products requested an 18-month term extension.

Moved by Harper; seconded by Henderson; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallonNoes:NoneAction:Staff will amend the above contract accordingly.

5. Consider Modified Statement of Work and Payment Schedule by City of Yucaipa, Contract #ML18129 (\$63,097 – Install EV Charging Infrastructure) The City has contracted with OBE Power (OBE) to design, install, and maintain the charging stations at City facilities. Under this agreement, OBE will own the stations for at least 10 years. The City requested to modify #ML18129 to reflect this ownership arrangement, with the understanding that the City would still be responsible for meeting the contract's requirements. Additionally, the City requested to increase the number of Level II public-access stations from six (6) to twelve (12), at no additional cost to the MSRC. While OBE will cover the cost of the charging equipment itself and direct installation costs, MSRC funding would go towards necessary civil construction work including addressing accessibility requirements.

Moved by Harper; seconded by Henderson; under approval of Consent Calendar Items #1-5, item unanimously approved.

Ayes:Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallonNoes:NoneAction:Staff will amend the above contract accordingly.

# For Approval – As Recommended

6. Consider Authorizing Issuance of New Contract to Complete Work Initiated by City of Paramount under Contract #ML18053 (\$64,675 – Install EV Charging Infrastructure

Cynthia Ravenstein, MSRC Contracts Administrator, presented that the City of

Paramount received over \$64,000 under the 2016-18 Work Program to install three Level II charging stations but encountered issues with reimbursement after not contesting a denied contract extension. They completed two stations and have now sought authorization for a replacement contract in an amount not to exceed \$42,686 for those completed stations. The MSRC TAC recommends approval.

Vice Chair Brian Berkson sought clarity on whether a contractor is entitled to partial payment for incomplete work, as he was unsure of the contract's stipulations. He emphasized the importance of legal review to determine if proportional payments are permissible based on the contract's terms.

The discussion revolved around the need for a new contract to reimburse for two charging stations, as the original contract is terminated. The provisions of the old contract allowed for proportional payments for completed work.

The discussion then revolved around the challenges faced in completing a project involving three locations, where only two were finished due to delays. Cynthia Ravenstein explained that unforeseen issues caused the delays, prompting MSRC member Mark Henderson to suggest that future funding requests should ensure all project aspects are planned thoroughly to avoid incomplete work.

Chair Larry McCallon asked for public comment.

John King, Assistant Planning Director, City of Paramount explained that the two stations that were complete were at the Paramount Sherriff Substation and Civic Center. The City has control of those locations, and that process went very smoothly. The third location that did not work out was on private property.

• Moved by Berkson for approval of the contract to replace the original contract, to get them paid for the two-thirds and to submit the final report; seconded by Krupa; item unanimously approved.

Ayes: Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallon
None
Action: Authorization of the new contract will be placed on the South Coast AQMD Board agenda for approval.

7. Consider 18-Month Term extension by Ryder Integrated Logistics, Inc., Contract #MS20116 (\$3,169,746 – Procure Two Integrated Power Centers and Four Mega Chargers)

Cynthia Ravenstein, MSRC Contracts Administrator, presented that Ryder has requested the MSRC to consider an 18-month extension for their project under the Inland Ports program. The MSRC Contracts Administrator recommends approval with the condition that Ryder submit either a firm delivery date or modification request by April 1, 2025; the MSRC-TAC recommends approval with the condition that Ryder submits an integrated schedule for both vehicles and infrastructure by December 31, 2024.

There was discussion on the need for timely infrastructure for Tesla trucks and concerns over funding and delivery timelines. Contract executed on December 7, 2022; a milestone was unmet, prompting a review by MSRC with an appeal process in place. Tesla's truck delivery milestone was missed; a new deadline of December 2024 is set, but no contract extension is granted.

Chair Larry McCallon asked for public comment.

No public comment.

• Moved by Berkson for approval to extend the milestone for vehicle delivery to December 31, 2024 and that Ryder submit integrated schedule for both vehicles and infrastructure, including intermediate milestones by December 31, 2024, no contract extension granted; seconded by Krupa; item unanimously approved.

Ayes:Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallonNoes:NoneAction:MSRC staff will speak with the Contractor accordingly.

# 8. Consider Proposed Amendments to MSRC "Operational Policies and Procedures".

Cynthia Ravenstein, MSRC Contracts Administrator, presented the operational policies adopted in 1993 and amended in 2020 be updated for consistency; key changes include a uniform 5% invoice withholding and conflict of interest compliance.

Chair Larry McCallon asked for public comment.

No public comment.

• Moved by Berkson to approve amendments and revise nomenclature where appropriate, seconded by Robertson; item unanimously approved.

Ayes:Krupa, Henderson, Harper, Lum, Robertson, Berkson, McCallonNoes:None

Action: MSRC staff will amend the Operational Policies and Procedures accordingly.

#### **OTHER BUSINESS:**

#### 9. Other Business

Chair McCallon asked if anyone has other business.

Linda Krupa from Hemet is now an official member of the MSRC, attending her first meeting as a full member representing Regional Rideshare Agency.

Daphne Hsu, Principal Deputy District Counsel updated on the Ports project, confirming minor edits needed for a \$28.5 million funding agreement for charging infrastructure for trucks.

# PUBLIC COMMENT PERIOD

No public comments.

# **ADJOURNMENT**

The meeting adjourned at 2:52 p.m.

### **NEXT MEETING**

Thursday, June 20, 2024 at 2:00 p.m.

[Prepared by Marjorie Eaton]

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#### BOARD MEETING DATE: October 4, 2024

AGENDA NO. 20

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The September Joint Meeting of the California Air Resources Board and the Assembly Bill 32 Environmental Justice Advisory Committee was held on September 12, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Gideon Kracov, Member South Coast AQMD Governing Board

ft

The Joint Meeting of the California Air Resources Board and the Assembly Bill 32 Environmental Justice Advisory Committee was held on September 12, 2024 in Sacramento, California at the California Environmental Protection Agency Headquarters Building. The key item presented is summarized below.

The California Air Resources Board (Board) and the Assembly Bill 32 Environmental Justice Advisory Committee (Committee) discussed the Board's Low Carbon Fuel Standard, Cap-and-Trade Program, and the Committee's Carbon Capture, Use and Storage and Direct Air Capture recommendations based on their Resolution. The Board and Committee also heard a presentation by CARB staff on the Committee's charter revision process and potential areas of Committee engagement in 2025.

#### Attachment

September 12, 2024 Meeting Agenda

# **California Air Resources Board Meeting Summary Report**

# Joint Meeting of the California Air Resources Board and the Assembly Bill 32 Environmental Justice Advisory Committee (September 12, 2024)

Note: This is a brief, informal summary of the public Board meetings and is meant to convey an overview of the items and the discussions related to them. This summary is not considered an official description of the meetings or of the Board's direction to Staff. The transcripts serve as the official recording of the meetings and are posted on the California Air Resources Board's Board Meeting Dates webpage about two weeks after the meeting.

The September Joint Meeting of the California Air Resources Board and the Assembly Bill 32 Environmental Justice Advisory Committee Meeting was held on September 12, 2024, in Sacramento, California at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

The California Air Resources Board (Board) and the Assembly Bill 32 Environmental Justice Advisory Committee (Committee) discussed the Board's Low Carbon Fuel Standard, Cap-and-Trade Program, and the Committee's Carbon Capture, Use and Storage and Direct Air Capture recommendations based on their Resolution. The Board and Committee also heard a presentation by CARB staff on the Committee's charter revision process and potential areas of Committee engagement in 2025.

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#### BOARD MEETING DATE: October 4, 2024

AGENDA NO. 22

- PROPOSAL: Certify the Final Subsequent Environmental Assessment for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities; and Amend Rule 1135
- SYNOPSIS: Rule 1135 establishes NOx emission limits for electric generating facilities. During the 2022 Amendment to Rule 1135, issues were raised regarding the NOx Best Available Retrofit Control Technology limit for electric generating units on Santa Catalina Island. Proposed Amended Rule 1135 (PAR 1135) establishes NOx emission limits for electric generating units located on Santa Catalina Island. PAR 1135 includes monitoring, reporting, and recordkeeping requirements for electric generating units located on Santa Catalina Island.

COMMITTEE: Stationary Source, August 16, 2024, Reviewed

# **RECOMMENDED ACTIONS:**

Adopt the attached Resolution:

- Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities; and
- 2. Amending Rule 1135 Emissions of Oxides of Nitrogen from Electricity Generating Facilities.

Wayne Nastri Executive Officer

SR:MK:MM

#### Background

Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135), is an source-specific rule which establishes NOx and CO emission limits for electric generating units (i.e., boilers, turbines, engines, etc.) at investor-owned electric utilities, at publicly owned electric utilities, or which have a generation capacity

of at least 50 Megawatts of electrical power for distribution in the state or local electrical grid system.

During the 2022 amendment of Rule 1135, stakeholders urged staff to conduct a BARCT analysis of electric generating units located on Santa Catalina Island emphasizing zero-emission (ZE) technologies. The one facility generating electricity on Santa Catalina Island currently operates six diesel internal combustion engines and 23 microturbines to generate power that range in age from 29 to 60 years old and emits an average of 71 tons of NOx per year. The electricity generating facility on Santa Catalina Island produces more than 10 percent of the NOx emissions from all electricity generating facilities in South Coast AQMD while providing less than 0.06 percent of the power. In response to stakeholder comments, staff performed a BARCT analysis with a focus on ZE and near-zero emission (NZE) technologies to repower Santa Catalina Island.

# **Proposed Amended Rule**

Proposed Amended Rule 1135 PAR 1135 will establish a NOx mass emission cap, that declines over time, for electric generating units located on Santa Catalina Island. The NOx mass emission caps are as follows:

Compliance Date	NOx
	(tons per year)
January 1, 2027	45
January 1, 2028	30
January 1, 2030	13
January 1, 2035	6

The proposed final NOx limit of six tons per year (tpy) can be achieved using a combination of Tier 4 Final diesel engines, NZE electric generating units, and ZE electric generating units. Staff assumed a combination of 30 percent ZE, 50 percent NZE, and 20 percent Tier 4 Final diesel internal combustion engines repower scenario for the purposes of the cost-effectiveness analysis. PAR 1135 requires the removal of legacy engines, limits the amount and size of new diesel engines, and requires any equipment installed after 2028 to meet Santa Catalina Island NZE or ZE emission standards.

PAR 1135 allows feasibility studies and time extensions to address power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies. PAR 1135 also includes monitoring, reporting, and recordkeeping requirements.

#### **Public Process**

PAR 1135 was developed through a public process. Six Working Group Meetings were held on May 5, 2022, August 4, 2022, November 8, 2022, January 19, 2023, March 27 and June 13, 2024. Staff also reported on the progress of the BARCT assessment to the Stationary Source Committee on August 19, 2022. In addition, Public Workshops were held on February 22, 2023 and July 31, 2024. Staff also conducted multiple site visits as part of this rule development process and has met numerous times with facility operators, technology vendors, and interested stakeholders.

#### **Emission Reductions**

The proposed final NOx limit is estimated to reduce NOx emissions at the electricity generation facility located on Santa Catalina Island by 65.3 tpy, or 0.18 ton per day by 2035. Estimated emission reductions were calculated by taking the difference between the baseline emissions from the electricity generating facility located on Santa Catalina Island and the estimated NOx emissions from the repower scenario. There will be approximately 172 tons of NOx emission reductions foregone between 2024 to 2029 when comparing PAR 1135 to current Rule 1135.

#### **Key Issues**

Throughout the rule development process, staff worked with stakeholders and revised PAR 1135 to address key issues. There are two remaining issues: results of the BARCT assessment; and the implementation dates for the NOx limits.

#### Results of BARCT Assessment

Stakeholders have questioned why the final BARCT emission limit of six tons per year was modified from the initial BARCT emission limit of 1.8 tons per year. BARCT emission limits take into consideration environmental impacts, energy impacts, and economic impacts. The electric generating plant on Santa Catalina Island is very unique being on an island and the only source of power including electricity, water movement, and waste systems, providing reliable and sufficient power is crucial in avoiding blackouts and other public health and safety issues. Other limitations are space constraints as the facility is near a hillside and other structures, providing challenges to physically expand the footprint of the facility. When taking into consideration the various factors affecting a reliable energy supply, the final BARCT determination is a NOx emissions cap of six tons per year. In addition to energy demand, other considerations such as power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies were taken into account. The initial BARCT analysis at 1.8 tons per year was based on an amount of propane per year being delivered to the island and enough storage capacity for 30-days in case of unforeseen circumstances preventing the required daily deliveries by barge while avoiding any loss of power needs on the island. Due to the uncertainty about whether the delivery can be consistently met and the potential lack of storage capacity, a lesser amount of propane delivery was evaluated.

The amount of propane ensures fewer emissions while providing sufficient, reliable power for critical infrastructure that supports compliance with the NOx emission caps and seeks to avoid rule violations.

#### Implementation Dates for NOx Limits

The implementation timelines have been characterized by some stakeholders as too lenient while others have said that they do not provide enough time. Staff is proposing to delay the 45 tons per year NOx limit from 2025 to 2027 and the 13 tons per year limit from 2026 to 2030. An additional limit of 30 tons per year is proposed for 2028 and a final limit of six tons per year in 2035. Extensions may be granted for up to three additional years for extenuating circumstances and are applicable to all proposed NOx limits (2027, 2028, 2030 and 2035). In addition, feasibility analyses can further extend implementation dates for the 2030 and 2035 NOx limits. The feasibility analyses will be conducted two years before the implementation dates (2028 and 2033 respectively) and will identify the electric generating units under consideration, the progress in procuring and installing the electric generating units, a description of how those units would achieve the emission limits, and, if applicable, the length of time of up to three years for an extension of the implementation date. The owner or operator will conduct the feasibility analyses to determine if the proposed emission limits can be met by the compliance date. The implementation dates reflect the challenges of installing new ZE/NZE technologies while continually providing reliable power to avoid blackouts and other public health and safety issues.

#### CEQA

Pursuant to South Coast AQMD's Certified Regulatory Program (Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(1); codified in South Coast AQMD Rule 110) and CEQA Guidelines Section 15187, South Coast AQMD, as lead agency for the proposed project (PAR 1135), has prepared a Subsequent Environmental Assessment (SEA), which is a substitute CEQA document pursuant to CEQA Guidelines Section 15252, prepared in lieu of a Subsequent Environmental Impact Report. The Final SEA concluded that significant and unavoidable adverse air quality impacts during operation may occur for the NOx limits of 45 tons per year, 30 tons per year and 13 tons per year due to interim emission reductions foregone, interim exceedances of the 24-hour average PM2.5 and PM10 air quality significance thresholds, and interim health risk impacts. No feasible mitigation measures were identified that would reduce these interim operational impacts to the less than significant levels. However, upon full implementation (e.g., at the final six tons per year NOx limit), no significant air quality impacts during operation will remain since PAR 1135 would be expected to reduce NOx emissions by 65.3 tons per year by January 1, 2035 (with a potential extension up to six years). The Final SEA is included as an attachment to this Board package (see Attachment I). In addition, Findings pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations

pursuant to CEQA Guidelines Section 15093, referred to in this Board Letter as Attachment 1 to the Resolution, were also prepared (see Attachment F).

#### Socioeconomic Impact Assessment

The implementation of PAR 1135 will affect one electricity generating facility located on Santa Catalina Island, which currently operates six diesel internal combustion engines and 23 microturbines to generate power. The facility is classified under the industry of Fossil Fuel Electric Power Generation per North American Industry Classification System (NAICS) with a NAICS code 221112. The affected facility does not qualify as a small business, based on various definitions of small businesses. While the initial capital costs are significant, the implementation of PAR 1135 is projected to result in an overall cost savings attributable to the recurring cost savings from maintenance and parts, employee and service costs, and fuel costs. The average annual cost savings due to the implementation of PAR 1135 are estimated to range from \$14.99 million to \$14.16 million from 2027 to 2059, depending on real interest rates assumed (1 to 4%). The job impacts of implementing PAR 1135 are negligible. The Final Socioeconomic Impact Assessment is included as an attachment to this Board Letter (see Attachment J).

# **AQMP and Legal Mandates**

PAR 1135 will partially implement Control Measure for Large Combustion Sources, L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, of the 2022 AQMP.

#### **Resource Impacts**

Existing staff resources are adequate to implement the proposed amended rule.

#### Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Attachment 1 to the Resolution Findings and Statement of Overriding Considerations
- G. PAR 1135
- H. Final Staff Report
- I. Final Subsequent Environmental Assessment
- J. Final Socioeconomic Impact Assessment
- K. Board Presentation

# ATTACHMENT A

# SUMMARY OF PROPOSAL

# Proposed Rule 1135 Emissions of Oxides of Nitrogen from Electricity Generating Facilities

#### **Definitions**

• Adds and modifies definitions for electricity generating equipment located on Santa Catalina Island

Emission Limits

- Establishes decreasing NOx emission limits over time for electric generating units located on Santa Catalina Island
- Prohibits the electricity generating facility located on Santa Catalina Island from installing more than three new diesel internal combustion engines and limits maximum cumulative rating for the proposed engines to 5.5 MW
- Prohibits the installation of new diesel engines or electricity generating equipment that does not meet Near-Zero-Emissions (NZE) or Zero-Emission (ZE) standards after 2028
- Requires engines installed prior to October 2024 to be removed from service by 2030
- Requires the operator to conduct feasibility analyses for the 2030 and 2035 NOx emission limits and allows up to three years extension to the implementation date
- Allows requests for time extensions for extenuating circumstances on all NOx emission implementation dates

Monitoring, Recordkeeping, and Reporting

- Requires units to be equipped with a Continuous Emissions Monitoring System (CEMS) to measure NOx except for units rated less than 0.5 MW and ZE electrical generating units
- Establishes methodology to calculate NOx emissions
- Requires maintaining records of all data used to calculate NOx emissions for five years

# **ATTACHMENT B**

# **KEY ISSUES AND RESPONSES**

## Proposed Rule 1135 Emissions of Oxides of Nitrogen from Electricity Generating Facilities

Throughout the rule development process, staff worked with stakeholders and revised PAR 1135 to address key issues. There are two remaining issues below raised by some stakeholders.

## Results of BARCT Assessment

Stakeholders have questioned why the final BARCT emission limit of 6 tons per year was modified from the initial BARCT emission limit of 1.8 tons per year. BARCT emission limits take into consideration environmental impacts, energy impacts, and economic impacts. As this facility is very unique being on an island and the only source of power including electricity, water movement, and waste systems, reliable sufficient power is crucial in avoiding blackouts and other public health issues related to polluted water and health hazards from biological waste exposure. When taking into consideration the various factors affecting a reliable energy supply, the final BARCT determination is for 6 tons per year NOx emissions cap. In addition to energy demand, other considerations such as power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies were taken into account. The initial BARCT analysis at 1.8 tons per year was based on delivery of a certain amount of propane per year being delivered to the island and enough storage capacity for 30-days in case of unforeseen circumstances preventing the required daily deliveries by barge while avoiding any loss of power needs on the island. Due to the uncertainty that the delivery can be met all the time and potential lack of storage capacity, a lesser amount of propane delivery was evaluated. The amount of propane ensures lower emissions while providing sufficient reliable power for critical infrastructure that supports compliance with the rule emission caps and seeks to avoid rule violations.

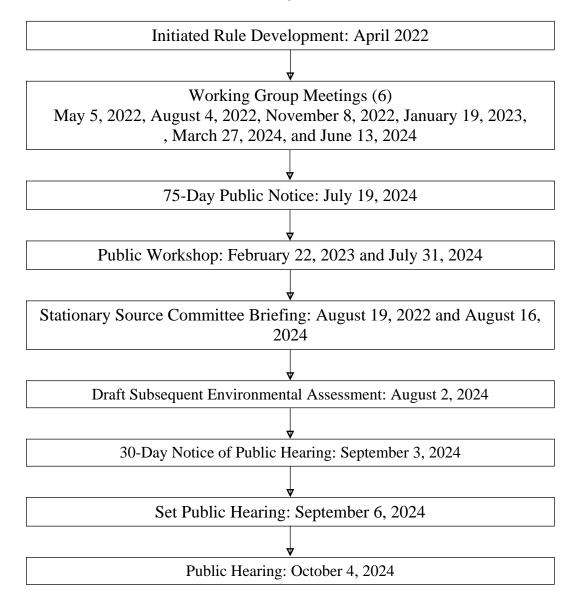
# Implementation Dates for NOx Limits

The implementation timelines have been characterized by some stakeholders as too lenient while others have said that they do not provide enough time. Staff is proposing to delay the 45 tons per year limit from 2025 to 2027 and the 13 tons per year limit from 2026 to 2030. An additional limit of 30 tons per year is proposed for 2028 and a final limit of 6 tons per year in 2035. Extensions may be granted for up to three additional years for extenuating circumstances and are applicable to all proposed NOx limits (2027, 2028, 2030, and 2035). The provides the necessary time to engineer, design, permit, install, and test new equipment. Future zero emissions units, solar installation or other technologies will take design, grid stability, install transmission lines, and require other governmental approvals. In addition, feasibility analyses can further extend implementation dates for the 2030 and 2035 emission limits. The feasibility analyses will be conducted two years before the implementation dates (2028 and 2033 respectively) and will identify the electric generating units under consideration, the progress in procuring and installing the electric generating units, a description of how those units would achieve the emission limits, and, if applicable, the length of time of up to three years the facility is requesting as an extension to the implementation dates reflect the challenges of installing new ZE/NZE technologies while continually providing reliable power to avoid blackouts and other public health issues.

# ATTACHMENT C

# **RULE DEVELOPMENT PROCESS**

Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities



Thirty (30) months spent in rule development.

- Two (2) Public Workshops.
- Two (2) Stationary Source Committee Meetings.
- Six (6) Working Group Meetings.

#### **ATTACHMENT D**

# **KEY CONTACTS LIST**

Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities

ADEPT Group **Bloom Energy** California Air Resources Board **California Communities Against Toxics** California Energy Commission California Hydrogen Business Council California Independent System Operator California Public Utilities Commission California Safe Schools Catalina Conservancy Citizens for a Better Wilmington City of Avalon Fire Department **Community Environmental Services** Coalition for Clean Air Coalition for a Safe Environment Cummins Doosan **EMERGE** 

Friends of the Air, Earth and Water Coalition Kids IAQ Latinos in Action Mainspring Energy Moose Boats NAACP - San Pedro-Wilmington Branch National Resources Defense Council Plug Power St. Philomena Church Social Justice Committee San Pedro Peninsula Homeowners United The Wilmington Wire Southern California Edison **Total Energies Renewables** U.S. Environmental Protection Agency United Wilmington Youth Foundation West Long Beach Association

#### ATTACHMENT E

#### RESOLUTION NO. 24-\_\_\_\_

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) certifying the Final Subsequent Environmental Assessment (SEA) for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities.

#### A Resolution of the South Coast AQMD Governing Board amending Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities.

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1135 is considered a "project" as defined by the California Environmental Quality Act (CEQA); and

**WHEREAS**, the South Coast AQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(1), and has conducted a CEQA review and analysis of Proposed Rule 1165 pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board has determined that the requirements for a Subsequent Environmental Impact Report have been triggered pursuant to its Certified Regulatory Program and CEQA Guidelines Section 15162(a), and that a Subsequent Environmental Assessment (SEA), a substitute document allowed pursuant CEQA Guidelines Section 15252 and South Coast AQMD's Certified Regulatory Program, is appropriate; and

WHEREAS, the South Coast AQMD has prepared a SEA pursuant to its certified regulatory program and CEQA Guidelines 15187, which tiers off of the Final Mitigated SEA for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities which was certified on November 2, 2018 (referred to as November 2018 Final Mitigated SEA for Rule 1135) as allowed by CEQA Guidelines Sections 15152, 15162, and 15385. Because the SEA is a subsequent document to the November 2018 Final Mitigated SEA for Rule 1135, the baseline is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135. The SEA concluded that the proposed project may result in significant and unavoidable adverse air quality impacts during operation due to interim emission reductions foregone of oxides of nitrogen (NOx), interim exceedances of the 24-hour average PM2.5 and PM10 air quality significance thresholds, and interim health risk impacts; and

**WHEREAS**, the Draft SEA was circulated for a 46-day public review and comment period, from August 2, 2024 to September 17, 2024, and two comment letters were received; and

WHEREAS, the Draft SEA has been revised to include updates to reflect changes made to Proposed Amended Rule 1135 after the public notice of availability of the Draft SEA, and to include the comments received on the Draft SEA and the responses, so that it is now a Final SEA; and

WHEREAS, it is necessary that the South Coast AQMD Governing Board review the Final SEA prior to its certification, to determine that it provides adequate information on the potential adverse environmental impacts that may occur as a result of amending Rule 1135, including the responses to the comments received relative to the Draft SEA; and

WHEREAS, no feasible mitigation measures were identified that would reduce or eliminate the interim significant adverse operational air quality impacts to less than significant levels and, as such, a Mitigation Monitoring Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 is not required and was not prepared; and

**WHEREAS**, it is necessary that the South Coast AQMD prepare Findings pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, regarding potentially significant adverse operational air quality impacts that cannot be mitigated to less than significant levels; and

**WHEREAS**, Findings and a Statement of Overriding Considerations have been prepared and are included in Attachment F in the Board letter, which is attached and incorporated herein by reference; and

WHEREAS, the South Coast AQMD Governing Board voting to amend Rule 1135 has reviewed and considered the information contained in the Final SEA, the Findings, the Statement of Overriding Considerations, and all other supporting documentation, prior to its certification, and has determined that the Final SEA has been completed in compliance with CEQA; and

WHEREAS, Proposed Amended Rule 1135 and supporting documentation, including but not limited to, the Final SEA, the Socioeconomic Impact Assessment, and the Final Staff Report were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and

**WHEREAS,** the Final SEA reflects the independent judgment of the South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that all changes made in the Final SEA after the public notice of availability of the Draft SEA, were not substantial revisions and do not constitute significant new information within the meaning of CEQA Guidelines Section 15073.5 or 15088.5, because no new significant effects were identified, and no new project conditions or mitigation measures were added, and all changes merely clarify, amplify, or make insignificant modifications to the Draft SEA, and recirculation is therefore not required; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment for Proposed Amended Rule 1135 is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule adoption; and

**WHEREAS,** the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment for Proposed Amended Rule 1135 is consistent with the provisions of Health and Safety Code Sections 40440.8, 40728.5, and 40920.6; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1135 will result in cost savings to the affected industry; and

**WHEREAS**, the South Coast AQMD Governing Board has actively considered the Final Socioeconomic Impact Assessment and has made a good faith effort to minimize adverse socioeconomic impacts; and

**WHEREAS**, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Amended Rule 1135 on February 22, 2023, and July 31, 2024; and

WHEREAS, Proposed Amended Rule 1135 and supporting documentation, including but not limited to, the Final SEA, Final Staff Report, and Final Socioeconomic Impact Assessment were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the proposed project; and

WHEREAS, the South Coast AQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D)(i) of the Administrative Code), that any modifications to Proposed Amended Rule 1135 since the Notice of Public Hearing was published are not so substantial as to significantly affect the meaning of Proposed Amended Rule 1135 within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the proposed amended rule, (c) the changes are consistent with the information contained in the Notice of Public Hearing, and (d) the effects of Proposed Amended Rule 1135 do not exceed the effects of the range of alternatives analyzed in the Final SEA; and

**WHEREAS**, Proposed Amended Rule 1135 will be submitted to California Air Resources Board (CARB) and United States Environmental Protection Agency (U.S. EPA) for inclusion into the State Implementation Plan; and

**WHEREAS**, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that a need exists to adopt Proposed Amended Rule 1135 to update NOx emission limits for the electricity generating facility located on Santa Catalina Island; and

WHEREAS, the South Coast AQMD Governing Board has determined that there is a problem that Proposed Amended Rule 1135 will alleviate, namely to delay rule implementation dates and reduce NOx emission limits at the electricity generating facility located on Santa Catalina Island; and

WHEREAS, the South Coast AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40001, 40440, 40441, 40506, 40510, 40702, 40725 through 40728, 40920.6, 41508, 41700, and 42300 et seq.; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1135 is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1135 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1135 does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board, in amending Rule 1135, references the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific: Assembly Bill 617 and Health and Safety Code Sections 39002, 39616, 40001, 40406, 40506, 40702, 40440(a), 40725 through 40728.5, 40920.6, and 42300 et seq., and federal Clean Air Act Sections 110, 172, 173, and 182(e); and

**WHEREAS**, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts or amends a rule, and that the South Coast AQMD's comparative analysis of Proposed Amended Rule 1135 is included in the Final Staff Report; and

**WHEREAS**, the public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Sections 40725 and 40440.5; and

**WHEREAS**, the South Coast AQMD Governing Board has held a public hearing in accordance with all applicable provisions of state and federal law; and

WHEREAS, the South Coast AQMD specifies the Planning and Rules Manager of Proposed Amended Rule 1135 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed amended rule is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

**NOW, THEREFORE BE IT RESOLVED**, that the South Coast AQMD Governing Board has considered the Final SEA for Proposed Amended Rule 1135 together with all comments received during the public review period, and, on the basis of the whole record before it, the South Coast AQMD Governing Board: 1) finds that the Final SEA was completed in compliance with CEQA and the South Coast AQMD's Certified Regulatory Program, 2) finds that the Final SEA and all supporting documents were presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered and approved the information therein prior to acting on Proposed Amended Rule 1135, and 3) certifies the Final SEA; and

**BE IT FURTHER RESOLVED,** that because no feasible mitigation measures were identified that would reduce or eliminate the interim significant adverse operational air quality impacts to less than significant levels, a Mitigation, Monitoring, and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 is not required and was not prepared; and

**BE IT FURTHER RESOLVED,** that because significant adverse environmental impacts were identified as a result of adopting Proposed Amended Rule 1135, Findings and a Statement of Overriding Considerations are required and were prepared; and

**BE IT FURTHER RESOLVED,** that the South Coast AQMD Governing Board does hereby adopt Findings pursuant to CEQA Guidelines Section 15091 and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, as required by CEQA and which are included as Attachment F and incorporated herein by reference; and **BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1135 as set forth in the attached, and incorporated herein by reference; and

**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board requests that Proposed Amended Rule 1135 be submitted into the State Implementation Plan; and

**BE IT FURTHER RESOLVED**, that the Executive Officer is hereby directed to forward a copy of this Resolution and Proposed Amended Rule 1135 and supporting documentation to CARB for approval and subsequent submittal to the U.S. EPA for inclusion into the State Implementation Plan.

DATE: \_\_\_\_\_

CLERK OF THE BOARDS

### ATTACHMENT F

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

#### **Attachment 1 to the Governing Board Resolution for:**

Final Subsequent Environmental Assessment for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities

**Findings and Statement of Overriding Considerations** 

September 2024

State Clearinghouse No. 2016071006 South Coast AQMD No. 20240801ST/ 09142018RB

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# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT GOVERNING BOARD

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#### **EXECUTIVE OFFICER:**

WAYNE NASTRI

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Attachment 1 to the Governing Board Resolution for: Final Subsequent Environmental Assessment for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities

**Findings and Statement of Overriding Considerations** 

Introduction

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# 1.0 Introduction

Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, is considered a "project" as defined by the California Environmental Quality Act (CEQA). [Public Resources Code Section 21000 et seq.]. Specifically, CEQA requires: 1) the potential adverse environmental impacts of proposed project to be evaluated; and 2) feasible methods to reduce or avoid any identified significant adverse environmental impacts of this project to also be evaluated. Public Resources Code Section 21061.1 and CEQA Guidelines Section 15364 define "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors."

Since the proposed project is comprised of a South Coast AQMD-proposed amended rule, the South Coast AQMD has the greatest responsibility for carrying out or approving the project as a whole, which may have a significant effect upon the environment, and is the most appropriate public agency to act as lead agency. [Public Resources Code Section 21067 and CEQA Guidelines Section 15051(b)].<sup>1</sup>

The proposed project amends the January 2022 version of Rule 1135 and proposes revisions specific to electric generating units located on Santa Catalina Island which will: 1) update nitrogen oxides (NOx) emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for near zero emission (NZE) electric generating units without Continues Emission Monitoring System (CEMS); 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024, to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 megawatts (MW); 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island zero emission (ZE) electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tons per year (tpy) and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting the 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

The South Coast AQMD, as Lead Agency for the proposed project, prepared a Subsequent Environmental Assessment (SEA) with significant impacts to conduct an environmental review of PAR 1135 pursuant to CEQA Guidelines Section 15187. The SEA is a substitute CEQA document

<sup>&</sup>lt;sup>1</sup> CEQA Guidelines refers to California Code of Regulations, Title 14, Section 15000 and following.

prepared in lieu of a Subsequent Environmental Impact Report (EIR) with significant impacts [CEQA Guidelines Section 15162], pursuant to the South Coast AQMD's Certified Regulatory Program [Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(1); codified in South Coast AQMD Rule 110]. Pursuant to CEQA Guidelines Sections 15152, 15162, and 15385, the SEA tiers off of and is a subsequent document to the Final Mitigated SEA for Rule 1135 which was certified on November 2, 2018 (referred to herein as the November 2018 Final Mitigated SEA for Rule 1135).

The purpose of the November 2018 amendments to Rule 1135 was to reduce NOx emissions from Regional Clean Air Incentives Market (RECLAIM) and non-RECLAIM electricity generating facilities which are owned or operated by an investor-owned electric utility, a publicly owned electric utility, or have electric generating units with a combined generation capacity of 50 MW or more of electrical power for distribution in the state or local electrical grid system. The November 2018 Final Mitigated SEA for Rule 1135 analyzed the environmental impacts associated with the activities that six affected facilities (referred to as Facilities 1, 2, 3, 4, 5, and 6) were expected to undertake to ensure compliance with amended Rule 1135. While the reduction of NOx emissions was expected to create an environmental benefit, the November 2018 amendments to Rule 1135 were anticipated to create potentially significant adverse environmental impacts for the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia. As such, mitigation measures were crafted to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels. No other environmental topic areas were identified as having potentially significant adverse environmental impacts. Because the November 2018 Final Mitigated SEA for Rule 1135 concluded that the project will not have a significant adverse impact on the environment after mitigation, mitigation measures were included as a condition of approval of this project. Thus, a Mitigation Monitoring and Reporting Plan, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097, was required and adopted for this project. However, Findings pursuant to CEQA Guidelines Section 15091 and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 were not required or adopted for the November 2018 version of Rule 1135.

Because this is a subsequent document, the baseline is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135. The 2018 amendments to Rule 1135 projected an overall NOx emission reduction of approximately 1.7 tons per day (tpd) from the six facilities identified as potentially needing modifications in order to achieve the emission limits in Rule 1135. Of these affected facilities, all but one facility, the electricity generating facility located on Santa Catalina Island (referred to as Facility 2), has either made modifications to achieve the emission limits in Rule 1135 or is no longer subject to Rule 1135 requirements. Relative to Facility 2, with the 13 tpy NOx limit by January 1, 2026 (with a potential extension up to three years), the 2018 amendments to Rule 1135 initially projected approximately 57 tpy of NOx emission reductions (equivalent to 0.16 tpd) would be achieved by the electricity generating facility located on Santa Catalina Island by January 1, 2026 (with a potential extension up to three years). Over 90% of the power generated at Facility 2 is from the operation of six diesel internal combustion engines and these six diesel engines were last modified in 2003 to install Selective Catalytic Reduction (SCR) technology. No other modifications have been made at Facility 2 to address the 2018 amendments to Rule 1135. Currently, the annual NOx emissions from Facility 2 are 71.3 tpy which is greater than the 70 tpy this facility was emitting at the time the November 2018 Final Mitigated SEA was prepared.

The SEA was prepared because PAR 1135 contains new information of substantial importance which was not known and could not have been known at the time the November 2018 Final Mitigated SEA for Rule 1135 was certified and the project will have significant effects that were not previously discussed. [CEQA Guidelines Section 15162(a)(3)(A)].

The SEA, which includes a project description and analysis of potential adverse environmental impacts that could be generated from PAR 1135, concluded to have generally the same or similar environmental effects that were previously examined in the November 2018 Final Mitigated SEA for Rule 1135. However, the air quality impacts from PAR 1135 will cause delayed NOx emission reductions, interim exceedances of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of particulate matter with an aerodynamic diameter of less than 2.5 microns (PM2.5) and particulate matter with an aerodynamic diameter of less than 10 microns (PM10), and interim operational cancer risks which will be more severe than what was discussed in November 2018 Final Mitigated SEA. Specifically, the Final SEA for PAR 1135 concluded that significant and unavoidable adverse environmental impacts may occur for the topic of air quality during operation because: 1) the peak daily NOx operational impacts associated with the delayed NOx emission reductions would exceed the South Coast AQMD's daily NOx operational significance threshold of 55 pounds per day until meeting the proposed 13 tpy NOx limits by January 1, 2030 (with a potential extension up to six years); 2) project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 would exceed the South Coast AQMD's significance threshold from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to six years); and 3) the operational cancer risk impacts would exceed the South Coast AQMD's significance threshold (i.e., 10 in a million) when meeting the 45 tpy, 30 tpy, and 13 tpy NOx limits in PAR 1135. However, once the electricity generating facility located on Santa Catalina Island meets the 6 tpy NOx limit in PAR 1135 on and after January 1, 2035 (with a potential extension up to six years), less than significant operational air quality impacts are expected. Therefore, pursuant to CEQA Guidelines Section 15252(a)(2)(A), an alternatives analysis was required and has been included in the Final SEA. However, no feasible mitigation measures were identified that would reduce or eliminate the significant adverse impacts for the air quality during operation. Thus, mitigation measures were not made a condition of approval of PAR 1135. Further, since no feasible mitigation measures were identified, a Mitigation, Monitoring, and Reporting Plan, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines 15097 is not required.

The Draft SEA was released and circulated for a 46-day public review and comment period from August 2, 2024 to September 17, 2024 and two comment letters were received during the comment period. None of the comment letters identified other potentially significant adverse impacts from the proposed project that should be analyzed and mitigated in the SEA. The comments and responses relative to the Draft SEA are included in Appendix E of the Final SEA.

In addition to incorporating the comment letters and the responses to comments, some modifications have been made to the Draft SEA to make it a Final SEA which include updates to reflect changes made to PAR 1135 after the public notice of availability of the Draft SEA. South

Coast AQMD staff evaluated the modifications made to PAR 1135 after the release of the Draft SEA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the project and was considerably different from others previously analyzed; and 4) the Draft SEA did not deprive the public from meaningful review and comment. In addition, revisions to PAR 1135 and the analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA. The Final SEA will be presented to the Governing Board prior to its October 4, 2024 public hearing (see Attachment I of the Governing Board package).

South Coast AQMD's certified regulatory program does not impose any greater requirements for making written findings for significant environmental effects than is required for an EIR under CEQA. When considering for approval a proposed project that has one or more significant adverse environmental effects, a public agency must make one or more written findings for each significant adverse effect, accompanied by a brief rationale for each finding. [Public Resources Code Section 21081 and CEQA Guidelines Sections 15065 and 15091]. The analysis in the Final SEA concluded that PAR 1135 has the potential to generate, significant adverse air quality impacts during operation which are more severe than what was previously analyzed in the November 2018 Final Mitigated SEA for Rule 1135 for air quality during operation.

For a proposed project with significant adverse environmental impacts, CEQA requires the lead agency to balance the economic, legal, social, technological, or other benefits of a proposed project against its significant unavoidable environmental impacts when determining whether to approve the proposed project. Under CEQA Guidelines Section 15093(a), "If the specific economic, legal, social, technological, or other benefits of a project outweigh the unavoidable significant adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'" Thus, after adopting findings, the lead agency must also adopt a "Statement of Overriding Considerations" to approve a proposed project with significant adverse environmental effects.

# 2.0 CEQA Provisions Regarding Findings

CEQA generally requires agencies to make certain written findings before approving a proposed project with significant environmental impacts. South Coast AQMD is exempt from some of CEQA's requirements pursuant to its Certified Regulatory Program, but complies with its provisions where required or otherwise appropriate.

Relative to making Findings, CEQA Guidelines Section 15091 provides:

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those

significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

- (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.
- (b) The findings required by subdivision (a) shall be supported by substantial evidence in the record.
- (c) The finding in subdivision (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation measures or alternatives. The finding in subdivision (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.
- (d) When making the findings required in subdivision (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.
- (e) The public agency shall specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which its decision is based.
- (f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

The "changes or alterations" referred to in CEQA Guidelines Section 15091(a)(1) may include a wide variety of measures or actions as set forth in CEQA Guidelines Section 15370, including:

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impact by replacing or providing substitute resources or environments.

# 3.0 Summary of the Proposed Project

Rule 1135 is an industry-specific rule which applies to electric generating units (i.e., boilers, turbines, engines, etc.) that are at investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 MW of electrical power for distribution in the state or local electrical grid system. Rule 1135 was adopted in August 1989 to reduce NOx emissions from electricity generating facilities and has been amended three times with the last two amendments in November 2018 and January 2022.

Amendments to Rule 1135 were adopted on November 2, 2018 which established Best Available Retrofit Control Technology (BARCT) NOx limits necessary for transitioning electric generating facilities subject to the RECLAIM to a command-and-control regulatory structure and to implement Control Measure CMB-05 – Further NOx Reductions from RECLAIM Assessment of the 2016 Air Quality Management Plan (AQMP) and California State Assembly Bill (AB) 617. The 2018 amendments expanded Rule 1135 applicability to all electric generating units at RECLAIM NOx, former RECLAIM NOx, and non-RECLAIM NOx electricity generating facilities. The amendments updated emission limits to reflect current BARCT levels at that time and to provide implementation timeframes for boilers, gas turbines, and internal combustion engines located on Santa Catalina Island. Additionally, the 2018 amendments to Rule 1135 established provisions for monitoring, reporting, and recordkeeping, and exemptions from specific provisions.

More recently, Rule 1135 was amended on January 7, 2022 to: 1) remove ammonia limits; 2) update provisions for CEMS; 3) include a reference to South Coast AQMD Rule 429.2 – Startup and Shutdown Exemption Provisions for Oxides of Nitrogen From Electricity Generating Facilities<sup>2</sup> to clarify startup and shutdown requirements; and 4) revise requirements for diesel internal combustion engines on Santa Catalina Island. At the time, stakeholders commented that an updated BARCT assessment was warranted due to the change in averaging time and that the BARCT assessment should emphasize ZE technologies. The adopted resolution directed South Coast AQMD staff to re-initiate rule development in 2022 which included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives as well as ZE and NZE technologies.

In December 2022, the South Coast AQMD adopted the 2022 AQMP which included a series of control measures to achieve the 2015 8-hour ozone national ambient air quality standards (NAAQS). In particular, Control Measure L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, focused on large combustion sources and assessing low NOx and ZE technologies for power generation, and specifically mentioned replacing existing diesel internal combustion engines with lower-emitting technologies.

Thus, additional amendments to Rule 1135 are currently proposed to address stakeholder comments raised during the January 2022 amendments and partially implement Control Measure L-CMB-06 of the 2022 AQMP. PAR 1135 proposes revisions specific to electricity generating units located on Santa Catalina Island which will: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new

<sup>&</sup>lt;sup>2</sup> South Coast AQMD, Rule 429.2, <u>http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-429-2.pdf</u>

diesel internal combustion engines from January 1, 2024, to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting the 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

When comparing the types of activities and environmental impacts resulting from the implementation of Rule 1135 amendments that were previously analyzed in the November 2018 Final Mitigated SEA, to the currently proposed changes which comprise PAR 1135, the type and extent of the physical changes are expected to be similar and to cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the November 2018 Final Mitigated SEA for Rule 1135. Thus, the proposed project is expected to have generally the same or similar effects that were previously examined in the November 2018 Final Mitigated SEA for Rule 1135. Thus, the proposed project is expected to have generally the same or similar effects that were previously examined in the November 2018 Final Mitigated SEA for Rule 1135. However, the air quality impacts from PAR 1135 will cause delayed NOx emission reductions, interim exceedances of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10, and interim operational cancer risks which will be more severe than what was discussed in November 2018 Final Mitigated SEA. Nonetheless, upon full implementation, PAR 1135 would be expected to reduce NOx emissions by 65.3 tpy by January 1, 2035 or after any applicable extensions.

# 4.0 Potentially Significant Adverse Impacts That Cannot be Reduced Below a Significant Level

The analysis in the Final SEA independently considered whether PAR 1135 would result in new significant impacts for any environmental topic areas previously concluded in the November 2018 Final Mitigated SEA for Rule 1135 to have either no significant impacts or less than significant impacts. The Final SEA for PAR 1135 identified the topic of air quality during operation as the only area in which the proposed project may temporarily cause significant and unavoidable adverse environmental impacts. No other significant adverse impacts were identified. The following discussion independently considers the currently proposed project (PAR 1135) and analyzes the incremental changes for operational air quality impacts, relative to the baseline which is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135.

# Air Quality Impacts During Operation

For the electricity generating facility located on Santa Catalina Island, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to six years), respectively. Thus, the analysis in the Final SEA estimated that implementation of PAR 1135 is expected to result in the following delayed NOx emission reductions which vary according to compliance year and exceed the South Coast AQMD's daily NOx operational significance threshold of 55 pounds per day:

- 21.3 tpy (equal to 116.71 lb/day) from January 1, 2024 to January 1, 2025;
- 26.3 tpy (equal to 144.11 lb/day) from January 1, 2025 to January 1, 2026;
- 58.3 tpy (equal to 319.45 lb/day) from January 1, 2026 to January 1, 2027 (with a potential extension up to three years);
- 32 tpy (equal to 175.34 lb/day) from January 1, 2027 (with a potential extension up to three years) to January 1, 2028 (with a potential extension up to three years); and
- 17 tpy (equal to 93.15 lb/day) from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to six years).

If any extension is granted for any proposed NOx emission limits, the emission reductions will be delayed for a longer period of time. Overall, the peak daily NOx operational impacts associated with the delayed NOx emission reductions from implementing PAR 1135 are significant until January 1, 2030 (with a potential extension up to six years) over the short-term, but less than significant after January 1, 2030 (with a potential extension up to six years) over the long-term.

Implementation of PAR 1135 is also expected to result in the exceedance of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 (i.e.,  $2.5 \ \mu g/m^3$ , and  $2.5 \ \mu g/m^3$ , respectively) during the operation of electricity generating facility located on Santa Catalina Island when meeting the proposed 30 tpy NOx limit by January 1, 2028 (with a potential extension up to three years). However, once this facility makes modifications necessary to achieve the proposed 13 tpy NOx limit by January 1, 2030 (with a potential extension up to six years), the project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 will no longer exceed the South Coast AQMD's thresholds of significance for these pollutants. Thus, significant operational air quality impacts are expected at this facility over the short-term from January 1, 2028 (with a potential extension up to six years) due to exceedance of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 will no longer exceed the South Coast AQMD's thresholds of significance for these pollutants. Thus, significant operational air quality impacts are expected at this facility over the short-term from January 1, 2028 (with a potential extension up to three years) until January 1, 2030 (with a potential extension up to six years) due to exceedance of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10.

Lastly, the analysis in the Final SEA concluded exceedance of the air quality significance threshold for cancer risk (i.e., 10 in one million) during the operation of the electricity generating facility located on Santa Catalina Island to meet the 45 tpy, 30 tpy, and 13 tpy NOx limits by January 1, 2027 (with a potential extension up to three years), January 1, 2028 (with a potential extension up to three years), and January 1, 2030 (with a potential extension up to six years), respectively However, once this facility meets the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), the operational cancer risk would not exceed the South Coast AQMD significance threshold. Thus, significant operational impacts from toxic air contaminants are expected at this facility when operating equipment to comply with the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. However, less than significant operational impacts from toxic air contaminants are expected once the electricity generating facility located on Santa Catalina Island meets the 6 tpy NOx limit.

If significant adverse environmental impacts are identified, the CEQA document shall describe feasible mitigation measures that could minimize the significant adverse impacts of the proposed project. [CEQA Guidelines Section 15126.4]. Therefore, feasible mitigation measures are required to reduce operational air quality impacts. CEQA defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." [Public Resources Code Section 21061.1].

However, the reason PAR 1135 is proposing to update the annual NOx emission limits and compliance dates at Facility 2 is because the facility cannot feasibly attain the current annual NOx limits by the compliance dates adopted in the November 2018 and January 2022 versions of Rule 1135. Thus, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for: 1) NOx emissions until meeting the 13 tpy NOx limit by January 1, 2030 (with a potential extension up to six years); 2) health risks when operating equipment to comply with the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits; and 3) project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to six years) to less than significant levels. Therefore, PAR 1135 is considered to have significant adverse unavoidable project-specific and cumulative air quality impacts during operation when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits.

# 5.0 Findings Regarding Potentially Significant Environmental Impacts

Public Resources Code Section 21081(a) and CEQA Guidelines Section 15091(a) provide that a public agency shall not approve or carry out a project with significant environmental effects unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. Additionally, the findings must be supported by substantial evidence in the record. [CEQA Guidelines Section 15091(b)]. Three potential findings can be made for potentially significant impacts:

**Finding 1:** Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the Final SEA. [Public Resources Code Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1)].

**Finding 2:** Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency. [Public Resources Code Section 21081(a)(2) and CEQA Guidelines Section 15091(a)(2)].

**Finding 3:** Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

As identified in the Final SEA and summarized in Section 4.0 of this attachment, PAR 1135 has the potential to create significant adverse operational air quality impacts. The South Coast AQMD Governing Board, therefore, makes the following findings regarding the proposed project. The Findings are supported by substantial evidence in the record as explained in each finding. These Findings will be included in the record of project approval and will also be noted in the Notice of Decision. The Findings made by the South Coast AQMD Governing Board are based on the following significant adverse impact identified in the Final SEA for PAR 1135:

Potential project-specific and cumulative delayed NOx emission reductions, changes in the 24-hour average concentrations of PM2.5 and PM10, and cancer risks during operation exceed the South Coast AQMD's applicable significance air quality thresholds and cannot be mitigated to less than significant levels when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. However, once the electricity generating facility located on Santa Catalina Island meets the 6 tpy NOx limit on and after January 1, 2035 (with a potential extension up to six years) less than significant air quality impacts are expected during operation.

# Finding and Explanation:

When comparing the types of activities and environmental impacts resulting from the implementation of Rule 1135 amendments that were previously analyzed in the November 2018 Final Mitigated SEA, to the currently proposed changes, PAR 1135 is anticipated to cause delayed NOx emissions reductions due to: 1) removing the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delaying the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); and 3) delaying the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to six years).

The Final SEA estimated these delayed NOx emission reductions, which vary according to compliance year, would exceed the South Coast AQMD's daily NOx operational significance threshold of 55 pounds per day until meeting the 13 tpy NOx limits by January 1, 2030 (with a potential extension up to six years). However, PAR 1135 will eventually reduce the annual NOx limits from 13 tpy to 6 tpy by January 1, 2035 (with a potential extension up to six years) which will result in an air quality and health benefit. Thus, the peak daily operational NOx emissions impacts at Facility 2 from implementing PAR 1135 are significant until January 1, 2030 (with a potential extension up to six years) over the short-term, but less than significant after January 1, 2030 (with a potential extension up to six years) over the long-term.

The Final SEA also estimated significant operational air quality impacts at the electricity generating facility located on the Santa Catalina Island over the short-term from January 1, 2028 (with a potential extension up to three years) until January 1, 2030 (with a potential extension up to six years) due to exceedance of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10. However, once this facility makes modifications necessary to achieve the proposed 13 tpy NOx limit by January 1, 2030 (with a potential extension up to six years), project-specific changes in the 24-hour average concentrations of PM2.5 and PM10. However, once this facility makes modifications necessary to achieve the proposed 13 tpy NOx limit by January 1, 2030 (with a potential extension up to six years), project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 will no longer exceed the South Coast AQMD's thresholds of significance for these pollutants.

Moreover, the analysis in the Final SEA indicated potentially significant cancer risk impacts during the operation of electricity generating facility located on Santa Catalina Island to meet the 45 tpy, 30 tpy, and 13 tpy NOx limits by January 1, 2027 (with a potential extension up to three years), January 1, 2028 (with a potential extension up to three years), and January 1, 2030 (with a potential extension up to six years), respectively. However, once this facility meets the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), the operational cancer risk would not exceed the South Coast AQMD significance threshold (i.e., 10 in a million).

Due to significant adverse air quality impacts during operation, feasible mitigation measures were required in the Final SEA to minimize the significant adverse impacts of the proposed project. However, the analysis in the Final SEA identified no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for: 1) NOx emissions until meeting the 13 tpy NOx limits by January 1, 2030 (with a potential extension up to six years); 2) project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to six years); and 3) health risks when operating equipment to comply with the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits to less than significant levels. Therefore, operational air quality impacts for NOx emissions, project-specific changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks are found to be significant and unavoidable when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. However, upon full implementation of PAR 1135 which will require attainment of the final 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), less than significant operational air quality impacts are expected.

The Governing Board finds that: 1) the NOx emissions from the electricity generating facility located on Santa Catalina Island currently exceed 50 tpy and as such, this facility cannot feasibly attain the current annual NOx limits by the compliance dates adopted in the November 2018 and January 2022 versions of Rule 1135; and 2) there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels when meeting the proposed interim 45 tpy, 30 tpy, and 13 tpy NOx limits [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)]. However, once this facility makes modifications necessary to achieve the proposed final 6

tpy NOx limit by January 1, 2035 (with a potential extension up to six years), less than significant air quality impacts are expected during operation.

# 5.1 Findings For Alternatives to the Proposed Project

# A. Alternative A: No Project

### Finding and Explanation:

The Final SEA analyzes a No Project Alternative, referred to as Alternative A, which consists of what would occur if the proposed project is not approved; in this case, not proposing amendments to Rule 1135. Under Alternative A, the electricity generating facility located on Santa Catalina Island would be subject to the following annual NOx limits in the January 2022 version of Rule 1135: 50 tpy by January 1, 2024; 45 tpy by January 1, 2025; and 13 tpy by January 1, 2026 (with a three-year extension option to meet 13 tpy by January 1, 2029). However, the facility has indicated that they cannot attain these annual NOx limits by their respective compliance dates. Currently, the annual NOx emissions from the electricity generating facility located on Santa Catalina Island already exceed the 50 tpy NOx limit which had a compliance date of January 1, 2024. Also, because the January 2022 version of Rule 1135 contains a prohibition to install new diesel engines after January 1, 2024, this facility would not be able to replace their existing diesel engines with new Tier 4 Final diesel engines to meet any of the annual NOx limits and compliance dates in the January 2022 version of Rule 1135. This means that the actual NOx emission reductions achieved from Alternative A would be fewer than originally projected for this facility.

The adopted resolution for 2022 amendments to Rule 1135 directed South Coast AQMD staff to re-initiate the rule development process and develop a proposal that included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies. Therefore, the main objectives of the proposed project are to: 1) revise the BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on NZE technologies; Therefore, the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies; and 2) reduce the final NOx mass emission limit for the facility located on Santa Catalina Island.

Moreover, although potentially significant cancer risks are expected when attaining any of the annual NOx limits in Alternative A, less than significant impacts to operational cancer risk are expected once the requirement for attainment with the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years) goes into effect for the proposed project.

Based on proceeding discussion, Alternative A is not environmentally superior to the proposed project. Furthermore, the No Project Alternative is infeasible because it neither meets the objectives of the proposed project nor takes into consideration the direction of adopted resolution during 2022 amendments to Rule 1135 to include a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies.

Because Alternative A is not environmentally superior to PAR 1135 and does not achieve the basic project objective, the Governing Board finds that the No Project Alternative is infeasible. [Public Resources Code 21081(a)(3); *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 1000- 1001 (upholding finding of infeasibility where agency determined alternative failed to achieve project objective)].

# **B.** Alternative **B:** More Stringent Proposed Project

## Finding and Explanation:

The Final SEA analyzes Alternative B, which is more stringent than PAR 1135. Under Alternative B, in lieu of the 6 tpy NOx limit that is currently proposed in PAR 1135, the electricity generating facility located on Santa Catalina Island would have to comply with a more stringent NOx limit of 1.8 tpy by January 1, 2035, (with a six-year extension option to meet 6 tpy by January 1, 2041). All other elements would be the same under Alternative B as for PAR 1135.

Because the electricity generating facility affected by PAR 1135 is very unique, located on an island, and serving as the sole provider of power, including electricity, water movement, and waste systems, providing reliable and sufficient power is crucial to avoid blackouts and other public health issues related to polluted water and health hazards from biological waste exposure. Overall, the electricity generating facility located on Santa Catalina Island should consider several repower parameters including electricity demand, power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies while trying to meet any proposed NOx emission limits. Under Alternative B, the final 1.8 tpy NOx limit would require increased quantities of propane to be delivered to the island on an annual basis and enough storage capacity for 30-days in case of unforeseen circumstances preventing the required daily deliveries by barge while avoiding any loss of power needs on the island. Compared to the proposed project, Alternative B would introduce uncertainty about whether the delivery can be consistently met and a potential lack of storage capacity.

Of the alternatives analyzed, Alternative B is the only alternative to the proposed project with less than significant operational cancer risk impacts when meeting its final annual NOx limit (e.g., 1.8 tpy). In addition, when compared to the proposed project which has a final NOx limit of 6 tpy by January 1, 2035 (with a potential extension up to six years) and less than significant impacts to operational cancer risk, Alternative B with its more stringent 1.8 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), would result fewer operational cancer risk impacts. Nonetheless, both the 6 tpy NOx limit in PAR 1135 and 1.8 tpy NOx limit in Alternative B would result in less than significant operational cancer risk impacts. Moreover, Alternative B would result in the same quantity of delayed NOx emission reductions as PAR 1135; however, Alternative B would be the only alternative resulting in greater NOx emission reductions, Alternative B would be considered the lowest toxic and environmentally superior alternative relative to the other alternatives and the proposed project.

The Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits if Alternative B is implemented. As such, the Governing Board finds that Alternative B will not avoid or substantially lessen the significant operational air quality impacts as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)]. However, under Alternative B, once this facility meets the proposed 1.8 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), less than significant air quality impacts are expected during operation.

# C. Alternative C: Less Stringent Proposed Project

## I. Finding and Explanation:

The Final SEA analyzes Alternative C, which is less stringent that the proposed project. Alternative C adjusts elements in PAR 1135 to create a less stringent proposed project by removing the 45 tpy and 6 tpy NOx limits; delaying the compliance date to attain 30 tpy NOx limit for one year; including a new annual NOx emission limit of 20 tpy by January 1, 2031 (with a potential extension up to three years); postponing the prohibition deadline to install a new diesel engine and install equipment that does not meet the definition of NZE or ZE electric generating unit for one year; delaying the compliance date to attain the 13 tpy NOx limit for five years; postponing the deadline to install NZE and/or ZE electric generating units with a cumulative rating greater than or equal to 1.8 MW for five years; and delaying the deadline to remove all prime power diesel engines with a construction date earlier than date of adoption from service for five years.

With regard to toxicity impacts, Alternative C would cause significant operational cancer risk impacts even when attaining the final 13 tpy NOx limit requirements whereas less than significant impacts to operational cancer risks are expected once the electricity generating facility located on Santa Catalina Island makes necessary modifications to meet the proposed 6 tpy NOx limit under PAR 1135. Alternative C would also result in further additional delayed NOx emissions reductions compared to PAR 1135. Moreover, the overall NOx emissions reductions under Alternative C would be 7 tpy fewer than the proposed project.

The Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels if Alternative C is implemented. Therefore, the Governing Board finds that Alternative C will not avoid or substantially lessen the significant environmental effect as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

# **D.** Alternative **D:** No ZE Equipment

# I. Finding and Explanation:

Alternative D proposes that the electricity generating facility located on Santa Catalina Island would have to comply with 13 tpy NOx limit by January 1, 2030 (with a potential extension up to six years) as the end point which is expected to be achieved by 48% NZE, and 52% diesel internal combustion engines for power generation. Thus, under Alternative D, the electricity generating facility located on Santa Catalina Island is not required to meet the 6 tpy NOx limit by January 1, 2035. All other elements, limits, and deadlines would be the same under Alternative D as is in the proposed project.

Alternative D would result in the same quantity of delayed NOx emission reductions as PAR 1135. However, the overall NOx emission reductions from Alternative D will be 7 tpy fewer than the proposed project. Moreover, although less than significant operational cancer risk impacts are expected when meeting the final 6 tpy NOx limits in PAR 1135, Alternative C would cause significant operational cancer risk impacts even when attaining the final annual NOx limit requirements.

The Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels if Alternative D is implemented. As such, the Governing Board finds that Alternative D will not avoid or substantially lessen the significant environmental effect as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].

# 5.2 Conclusion of Findings

The Governing Board makes the following findings:

- 1) No feasible mitigation measures have been identified in the Final SEA that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. However, once this facility makes modifications necessary to achieve the proposed 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), less than significant air quality impacts are expected during operation.
- 2) Alternative A, the No Project alternative, is infeasible because it neither meets the objectives of the proposed project nor takes into consideration the direction of adopted resolution during 2022 amendments to Rule 1135 to include a revised BARCT assessment for the electricity generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies. Because Alternative A is not environmentally superior to PAR 1135 and does not achieve the basic project objective, the Governing Board finds that the No Project Alternative is infeasible. [Public Resources Code 21081(a)(3); California Native Plant Society v. City of Santa Cruz (2009) 177

Cal.App.4th 957, 1000- 1001 (upholding finding of infeasibility where agency determined alternative failed to achieve project objective)].

- 3) For Alternatives C and D, the Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels. As such, the Governing Board finds that neither Alternative C nor Alternative D will avoid or substantially lessen the significant operational air quality impacts as identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)].
- 4) Alternative B was identified in the Final SEA as the environmentally superior alternative. However, the Governing Board finds that there are no feasible mitigation measures that would eliminate or reduce the project-level or cumulative significant adverse operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. Therefore, Alternative B will not avoid or substantially lessen the significant operational air quality impacts identified in the Final SEA. [Public Resources Code Section 21081(a)(3) and CEQA Guidelines Section 15091(a)(3)]. However, under Alternative B, there is uncertainty with its potential for implementation because the ability of the affected facility meeting the proposed 1.8 tpy NOx limit by January 1, 2035 (with a potential extension up to six years) is dependent upon whether the amount of increased propane deliveries while maintaining a 30-day storage capacity can be consistently achieved.

The Governing Board further finds that the Final SEA considered alternatives pursuant to CEQA Guidelines Section 15126.6, but there is no alternative to PAR 1135 that would reduce to insignificant levels the significant operational air quality impacts identified for the proposed project and still achieve the objectives of the proposed project.

The Governing Board further finds that the findings required by CEQA Guidelines Section 15091(a) are supported by substantial evidence in the record.

# 6.0 Statement of Overriding Considerations

If significant adverse impacts of a proposed project remain after incorporating mitigation measures, or no measures or alternatives to mitigate the adverse impacts are identified, the lead agency must make a determination that the benefits of the project outweigh the unavoidable adverse environmental effects if it is to approve the project. CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. [CEQA Guidelines Section 15093(a)]. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable" [CEQA Guidelines Section 15093(a)]. Accordingly, a Statement of Overriding Considerations regarding potentially significant adverse operational air quality impacts resulting from PAR 1135 has been prepared. This Statement of Overriding Considerations is included as part of the record of the

project approval for PAR 1135. Pursuant to CEQA Guidelines Section 15093(c), the Statement of Overriding Considerations will also be noted in the Notice of Decision for PAR 1135.

Despite the inability to incorporate changes into PAR 1135 that will mitigate potentially significant adverse operational air quality impacts to a level of insignificance when meeting the proposed 45 tpy, 30 tpy and 30 tpy NOx limits, the South Coast AQMD Governing Board finds that the following benefits and considerations outweigh the significant unavoidable adverse environmental impacts:

- 1. The analysis of potential adverse environmental impacts incorporates a "worst-case" approach. This entails the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. This method likely overestimates the actual adverse environmental impacts from PAR 1135.
- 2. Although PAR 1135 is expected to result in delayed NOx emissions reductions until January 1, 2030 (with a potential extension up to six years), implementation of PAR 1135 is expected to incrementally reduce the annual NOx emissions from the current 71.3 tpy to 45 tpy, 30 tpy, and 13 tpy by January 1, 2027 (with a potential extension up to three years), January 1, 2028 (with a potential extension up to three years), and January 1, 2030 (with a potential extension up to six years), respectively. Moreover, upon full implementation of PAR 1135 by January 1, 2035 (with a potential extension up to six years), the NOx limit of 13 tpy by January 1, 2026 (with a three-year extension option) will be reduced further to 6 tpy which will provide additional air quality and health benefits.
- 3. While significant operational air quality impacts are expected at the electricity generating facility located on Santa Catalina Island over the short-term from January 1, 2028 (with a potential extension up to three years) until January 1, 2030 (with a potential extension up to six years) due to exceedances of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10, these thresholds will not be exceeded after January 1, 2030 (with a potential extension up to six years).
- 4. Although significant operational impacts from toxic air contaminants are expected at the electricity generating facility located on Santa Catalina Island when operating equipment to comply with the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits, less than significant operational impacts from toxic air contaminants are expected once the affected facility meets the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years).
- 5. During 2022 amendments to Rule 1135, stakeholders commented that an updated BARCT assessment was warranted due to the change in averaging time and that the BARCT assessment should emphasize ZE technologies. Also, in December 2022, the South Coast AQMD adopted the 2022 AQMP which included a series of control measures to achieve the 2015 8-hour ozone NAAQS. In particular, Control Measure L-CMB- 06: NOx Emission Reductions from Electricity Generating Facilities, focused on large combustion sources and assessing low NOx and ZE technologies for power generation, and specifically

mentioned replacing existing diesel internal combustion engines with lower-emitting technologies. Thus, PAR 1135 is currently proposed to address stakeholder comments raised during the January 2022 amendments to Rule 1135 and to partially implement Control Measure L-CMB-06 of the 2022 AQMP. Moreover, the adoption of PAR 1135 is consistent with the adopted resolution during 2022 amendments to Rule 1135 which directed South Coast AQMD staff to re-initiate rule development in 2022 which included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives as well as ZE and NZE technologies.

6. Although PAR 1135 would still cause temporary significant operational air quality impacts for NOx emissions, changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks, it is considered to provide the best balance in achieving the project objectives while minimizing the significant adverse environmental impacts to operational air quality.

The South Coast AQMD Governing Board finds that the above-described considerations outweigh the unavoidable significant effects to the environment as a result of PAR 1135.

# 7.0 Mitigation

CEQA requires an agency to prepare a plan for reporting and monitoring compliance with the implementation of measures to mitigate significant adverse environmental impacts. When making findings as required by Public Resources Code Section 21081 and CEQA Guidelines Section 15091, the lead agency must adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment [Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097(a)]. The provisions of CEQA Guidelines Section 15097 and Public Resources Code Section 21081.6 are triggered when the lead agency certifies a CEQA document in which mitigation measures changes, or alterations have been required or incorporated into the project to avoid or lessen the significance of adverse impacts identified in the CEQA document.

However, no feasible mitigation measures were identified for PAR 1135 that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions, project-specific changes in the 24-hour average concentrations of PM2.5 and PM10, and health risks to less than significant levels when meeting the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. It should be noted that once the electricity generating facility located on Santa Catalina Island makes modifications necessary to achieve the proposed 6 tpy NOx limit by January 1, 2035 (with a potential extension up to six years), less than significant air quality impacts are expected during operation. Since no feasible mitigation measures were identified, mitigation measures and a corresponding mitigation, monitoring and reporting plan are not required and have not been prepared.

# 8.0 Record of Proceedings

For purposes of CEQA, including the Findings and Statement of Overriding Considerations, the Record of Proceedings for PAR 1135 consists of the following documents and other evidence, at a minimum:

- The Final SEA for PAR 1135, including appendices and technical studies included or referenced in the Final SEA, comment letters, responses to comments, and all other public notices issued by South Coast AQMD for the Final SEA.
- The Draft SEA for the proposed project including appendices and technical studies included or referenced in the Draft SEA, and all other public notices issued by South Coast AQMD for the Draft SEA.
- The Preliminary Draft, Draft and Final versions of the rule language and associated staff report.
- The Draft and Final version of the Socioeconomic Impact Assessment.
- All written and verbal public testimony presented during a noticed public hearing for PAR 1135.
- All documents, studies, EAs, or other materials incorporated by reference and tieredoff in the Draft SEA and Final SEA.
- The Resolution adopted by South Coast AQMD in connection with PAR 1135, and all documents incorporated by reference therein.
- Matters of common knowledge to South Coast AQMD, including but not limited to federal, state, and local laws and regulations.
- Any documents expressly cited in the Findings and Statement of Overriding Considerations.
- Any other relevant materials required to be in the record of proceedings by Public Resources Code Section 21167.6(e).
- The Notice of Decision, prepared in compliance with Public Resources Code Section 21080.5(d)(2)(E), CEQA Guidelines Section 15252(b), and South Coast AQMD Rule 110(f), if the Governing Board certifies the Final SEA and approves PAR 1135.

To comply with CEQA Guidelines Section 15091(e), the South Coast AQMD specifies the Deputy Executive Officer of the Planning, Rule Development, and Implementation Division as the custodian of the administrative record for PAR 1135, which includes the documents or other materials which constitute the record of proceedings upon which the South Coast AQMD's actions related to the proposed project is based, and which are located at the South Coast AQMD headquarters, 21865 Copley Drive, Diamond Bar, California 91765. Copies of these documents, which constitute the record of proceedings, are and at all relevant times have been and will be available upon request. This information is provided in accordance with Public Resources Code Section 21081.6(a)(2) and CEQA Guidelines Section 15091(e).

(Adopted August 4, 1989)(Amended December 21, 1990)(Amended July 19, 1991) (Amended November 2, 2018)(Amended January 7, 2022)(Amended TBD)

# PROPOSEDEMISSIONS OF OXIDES OF NITROGEN FROMAMENDEDELECTRICITY GENERATING FACILITIESRULE 1135-ELECTRICITY GENERATING FACILITIES

(a) Purpose

The purpose of this rule is to reduce emissions of oxides of nitrogen (NOx) from electric generating units at electricity generating facilities.

(b) Applicability

This rule shall apply to electric generating units at electricity generating facilities.

- (c) Definitions
  - (1) ANNUAL CAPACITY FACTOR means the ratio between the measured heat input (in MMBtu) from fuel consumption to an electric generating unit during a calendar year and the potential heat input (in MMBtu) to the electric generating unit had it been operated for 8,760 hours during a calendar year at the permitted heat input rating, expressed as a percent. Annual capacity factor does not include heat input of the electric generating unit during an Emergency Phase of the California Energy Commission Energy Emergency Response Plan or a Governor-Declared State of Emergency or Energy Emergency.
  - (2) <u>ANNUAL NOx MASS EMISSIONS means actual emissions of NOx</u> produced from all electric generating units at an electricity generating <u>facility between January 1st through December 31<sup>st</sup>.</u>
  - (23) BACKUP UNIT means any NOx emitting turbine which is used intermittently to produce energy on a demand basis, does not operate more than 1,300 hours per year, is not subject to 40 <u>Code of Federal Regulations</u> (CFR) Part 72, and was a NOx process unit prior to the facility becoming a former RECLAIM NOx facility.
  - (34) BOILER means any combustion equipment fired with liquid and/or gaseous fuel, which is primarily used to produce steam that is expanded in a turbine generator used for electric power generation.

- (4<u>5</u>) COGENERATION TURBINE means a gas turbine which is designed to generate electricity and useful heat energy at the same time (combined heat and power).
- (56) COMBINED CYCLE GAS TURBINE means a gas turbine that recovers heat from the gas turbine exhaust gases for use in a heat recovery steam generator to generate additional electricity.
- (6<u>7</u>) DAILY means a calendar day starting at 12 midnight and continuing through 11:59 p.m.
- (78) DUCT BURNER means a device located in the heat recovery steam generator of a gas turbine that combusts fuel and adds heat energy to the turbine exhaust to increase the output of the heat recovery steam generator.
- (89) ELECTRIC GENERATING UNIT means a boiler that generates electric power, a gas turbine that generates electric power with the exception of cogeneration turbines, or a diesel internal combustion engine<u>equipment</u> that generates electric power and is located on Santa Catalina Island. An electric generating unit does not include with the exception of emergency internal combustion engines and portable engines registered under the California Air Resources Board Statewide Portable Equipment Registration Program (PERP).
- (91 ELECTRICITY GENERATING FACILITY means a facility that is owned
   0) or operated by an investor-owned electric utility or a publicly owned electric utility and has one or more electric generating units; or has electric generating units with a combined generation capacity of 50 megawattsMegawatts (MW) or more of electrical power for distribution in the state or local electrical grid system. Electricity generating facility does not include facilities subject to South Coast AQMD Rule 1109.1 Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations, South Coast AQMD Rule 1150.3 Emissions of Oxides of Nitrogen from Combustion Equipment at Landfills, or South Coast AQMD Rule 1179.1 Emission Reductions from Combustion Equipment at Publicly Owned Treatment Works Facilities.
- (10 EMISSION CAP is calculated as the total daily NOx emissions in pounds
- <u>11</u>) from all boilers at an electricity generating facility, expressed in pounds of NOx.
- (11 EMISSION RATE is calculated as the total daily NOx emissions in pounds
- 12) from all boilers at an electricity generating facility, divided by the total daily

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net electric power generated and/or obtained in Megawatt-Hours from all boilers at an electricity generating facility, expressed in pounds of NOx per Megawatt-Hour.

- (12 FORCE MAJEURE NATURAL GAS CURTAILMENT means:
- 13)
- (A) An interruption in natural gas service due to unavoidable or unforeseeable failure, malfunction, or natural disaster, not resulting from an intentional or negligent act or omission on the part of the owner or operator of an electric generating unit; or
- (B) A supply restriction resulting from the application of a California Public Utilities Commission priority allocation system of Southern California Gas Company Tariff Rule 23, such that the daily fuel needs of an electric generating unit cannot be met with the natural gas available.
- (13 FORMER RECLAIM NOx FACILITY means a facility or any of its
- <u>14</u>) successors that was in the NOx Regional Clean Air Incentives Market (RECLAIM) as of January 5, 2018, as established in Regulation XX – Regional Clean Air Incentives Market (RECLAIM) (Regulation XX), that has received a final determination notification, and is no longer in the NOx RECLAIM program.
- (14 INTERNAL COMBUSTION ENGINE means a reciprocating--type engine
- 15) in which the combustion of a fuel occurs with an oxidizer (usually air) in a combustion chamber to produce mechanical energy.
- (15 INVESTOR-OWNED ELECTRIC UTILITY means a business organization
- <u>16</u>) managed as a private enterprise that operates electric generating unit(s) for electric power distribution primarily in the grid system overseen by the California Public Utilities Commission.
- (16 NON-RECLAIM NOx FACILITY means a facility or any of its successors
- 17) that was not in the NOx RECLAIM as of January 5, 2018, as established in Regulation XX.
- (17 OXIDES OF NITROGEN (NOx) EMISSIONS means the sum of nitric
- <u>18</u>) oxides and nitrogen dioxides emitted, collectively expressed as nitrogen dioxide emissions.
- (18 PUBLICLY OWNED ELECTRIC UTILITY means a special-purpose
- <u>19</u>) district or other jurisdiction, including municipal districts or municipalities,

that operates electric generating unit(s) for electric power distribution, either partially or totally, to residents of that district or jurisdiction.

- (19 RECLAIM NOx FACILITY means a facility or any of its successors that is
- <u>20</u>) in the NOx RECLAIM as of January 5, 2018, as established in Regulation XX and is still in RECLAIM on the relevant date.
- (21) SANTA CATALINA ISLAND NEAR-ZERO EMISSION (NZE) ELECTRIC GENERATING UNIT means any electric generating unit located on Santa Catalina Island that produces NOx emissions greater than 0.01 pounds per Megawatt-Hour (lb/MW- hr) but less than or equal to 0.07 lb/MW-hr as demonstrated by a South Coast AQMD permit condition or other method determined to be equivalent by the Executive Officer.
- (22) SANTA CATALINA ISLAND ZERO-EMISSION (ZE) ELECTRIC GENERATING UNIT means any electric generating unit located on Santa Catalina Island that produces NOx emissions less than or equal to 0.01 lb/MW-hr as demonstrated by a South Coast AQMD permit condition or other method determined to be equivalent by the Executive Officer.
- (20 SHUTDOWN is as defined in South Coast AQMD Rule 429.2 Startup and
- 23) Shutdown Exemption Provisions for Oxides of Nitrogen from Electricity Generating Facilities (Rule 429.2).
- (21 SIMPLE CYCLE GAS TURBINE means any stationary combustion turbine
- <u>24</u>) that does not recover heat from the combustion turbine exhaust gases to heat water or generate steam.
- (22 STARTUP is as defined in South Coast AQMD Rule 429.2.
- <u>25</u>)
- (23 TUNING means adjusting, optimizing, rebalancing, or other similar
- <u>26</u>) operations to an electric generating unit or an associated control device or as otherwise defined in the Permit to Operate. Tuning does not include normal operations to meet load fluctuations.
- (d) <u>EmissionsEmission</u> Limits
  - (1) Emission Limits for Boilers and Gas Turbines

On and after January 1, 2024, the owner or operator of an electricity generating facility shall not operate a boiler or gas turbine in a manner that exceeds the NOx emission limits listed in Table 1: Emission Limits for Boilers and Gas Turbines, where:

- (A) Boilers and gas turbines for which the owner or operator has applied for Permits to Construct after November 2, 2018 shall average the NOx emission limits in Table 1 over a 60-minute rolling average.
- (B) Boilers and gas turbines installed or for which the owner or operator has applied for Permits to Construct prior to November 2, 2018 shall:
  - Average the NOx emission limits in Table 1 over a 60-minute rolling average; or
  - (ii) Retain the averaging time requirements specified in the Permit to Operate as of November 2, 2018.

Equipment Type	NO <sub>x</sub> (ppmv)	Oxygen Correction (%, dry)
Boiler	5	3
Combined Cycle Gas Turbine and Associated Duct Burner	2	15
Simple Cycle Gas Turbine	2.5	15

#### Table 1: Emission Limits for Boilers and Gas Turbines

- (2) Electric Generating Units Located on Santa Catalina Island The owner or operator of an electricity generating facility located on Santa Catalina Island with diesel internal combustion engines electric generating units shall:
  - (A) By January 1, 2024, meet a mass emission limit from all electric generating units of 50 tons of NOx annually, including mass emissions from startups and shutdowns;Not install more than three new diesel internal combustion engines with a maximum cumulative rating of 5.5 MW as indicated on the rated prime power nameplate;
  - (B) Not install any new diesel internal combustion engines after January 1, 2024January 1, 2028 or six months after any time extensions provided pursuant to subparagraphs (d)(3)(C) or (d)(5)(C); A diesel internal combustion engine undergoing reconstruction as defined in 40 CFR Part 60.15 or Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition

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Engines shall not be considered as a new diesel internal combustion engine installation for the purposes of this subparagraph;

- (C) Not install any equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any time extensions provided pursuant to subparagraphs (d)(3)(C) or (d)(5)(C);
- (D) Install Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units by January 1, 2030 or six months after any time extensions provided pursuant to subparagraphs (d)(3)(C) or (d)(5)(C) with a minimum cumulative rating of 1.8 MW as indicated on the rated prime power nameplate, excluding the following from the minimum cumulative rating:
  - (i) <u>The highest rated Santa Catalina Island NZE electric</u> generating unit and/or Santa Catalina Island ZE electric generating unit;
  - (ii) Solar photovoltaic cells; and
  - (iii) Battery storage;
- (CE By January 1, 2025, meet aMeet the annual NOx mass emission
- ) limitlimits specified in Table 2: Emission Limits for Electric Generating Units Located on Santa Catalina Island from for all electric generating units of 45 tons of NOx annually, including mass emissions from startups and shutdowns, and missing data substitutions pursuant to South Coast AQMD Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications (Rule 218.3) and South Coast AQMD Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions (Rule 2012) or other approved missing data substitutions as approved by the Executive Officer; and

# Table 2: Emission Limits for Electric Generating Units Located on

<u>Santa Catalina Island</u>				
Rule ReferenceCompliance DateNOx (tons per year)				
<u>(d)(2)(E)(i)</u>	January 1, 2027	<u>45</u>		

<u>(d)(2)(E)(ii)</u>	January 1, 2028	<u>30</u>
<u>(d)(2)(E)(iii)</u>	January 1, 2030	<u>13</u>
<u>(d)(2)(E)(iv)</u>	January 1, 2035	<u>6</u>

- (DF On and after January 1, 2026, meet a mass emission limit from all electric generating units of 13 tons of NOx annually, including mass emissions from startups and shutdowns. Remove all prime power diesel internal combustion engines for which installation was completed earlier than [*Date of Adoption*] from service by January 1, 2030 or six months after any time extensions provided pursuant to subparagraphs (d)(3)(C) or (d)(5)(C).
- (3) Feasibility Analysis for Electric Generating Units Located on Santa Catalina Island
  - (A) By January 1, 2028, the owner or operator of an electricity generating facility located on Santa Catalina Island shall conduct an analysis of the feasibility of the NOx emission limits in clause (d)(2)(E)(iii) and provide the report to the Executive Officer. The assessment shall include:
    - (i) Identification of the electric generating units under assessment to meet the NOx emission limits in clause (d)(2)(E)(iii);
    - (ii) <u>Progress of replacing or retrofitting the electric generating</u> <u>units;</u>
    - (iii) <u>A description of the technology or technologies that will be</u> <u>used to achieve the mass emission limit;</u>
    - (iv) The length of time necessary to replace or retrofit the electric generating units; and
    - (v) If applicable, the length of time, up to three years, of any request for a time extension to meet the NOx emission limits in clause (d)(2)(E)(iii).
  - (B) Any request for a time extension will be made available by the Executive Officer for public review no less than 30 days prior to approval.

- (C) The Executive Officer will approve or disapprove the request for a time extension. Approval or disapproval will be based on the following criteria:
  - (i) The owner or operator prepared the request for a time extension in compliance with subparagraph (d)(3)(A); and
  - (ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed. Such a demonstration may include, but is not limited to, providing grid stability studies, detailed schedules, engineering designs, construction plans, land acquisition contracts, permit applications, and purchase orders.
- (D) By January 1, 2033, the owner or operator of an electricity generating facility located on Santa Catalina Island shall conduct an analysis of the feasibility of the NOx emission limits in clause (d)(2)(E)(iv) and provide the report to the Executive Officer. The assessment shall include:
  - (i) Identification of the electric generating units under assessment to meet the NOx emission limits in clause (d)(2)(E)(iv);
  - (ii) <u>Progress of replacing or retrofitting the electric generating</u> <u>units;</u>
  - (iii) <u>A description of the technology or technologies that will be</u> used to achieve the mass emission limit;
  - (iv) The length of time necessary to replace or retrofit the electric generating units; and
  - (v) If applicable, the length of time, up to three years, of any request for a time extension to meet the NOx emission limits in clause (d)(2)(E)(iv).
- (E) Any request for a time extension will be made available by the Executive Officer for public review no less than 30 days prior to approval.
- (F) <u>The Executive Officer will approve or disapprove the request for a</u> <u>time extension. Approval or disapproval will be based on the</u> <u>following criteria:</u>
  - (i) The owner or operator prepared the request for a time extension in compliance with subparagraph (d)(3)(D); and

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- (ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed. Such a demonstration may include, but is not limited to, providing grid stability studies, detailed schedules, engineering designs, construction plans, land acquisition contracts, permit applications, and purchase orders.
- (34) <u>EmissionsEmission</u> Limits for Diesel Internal Combustion Engines
  - (A) The owner or operator of an electricity generating facility located on Santa Catalina Island shall not operate a new diesel internal combustion engine that is installed to meet the mass emission limits specified in subparagraphs (d)(2)(A), (d)(2)(C) and (d)(2)(D)subparagraph (d)(2)(E) in a manner that exceeds the NOx, carbon monoxide, volatile organic compounds, and particulate matter emissions limits listed in Table 2<u>3</u>: EmissionsEmission Limits for Diesel Internal Combustion Engines.
  - (B) Diesel internal combustion engines installed prior to November 2, 2018 may retain the averaging time requirements specified in the Permit to Operate as of November 2, 2018.

# Table 23: EmissionsEmission Limits for Diesel Internal Combustion Engines Engines

NO <sub>x</sub> (ppmv) <sup>1</sup>	Carbon Monoxide (ppmv) <sup>2</sup>	Volatile Organic Compounds (ppmv) <sup>3</sup>	Particulate Matter (lbs/ <del>MMbtu<u>M</u> <u>MBtu</u>)<sup>4</sup></del>
45	250	30	0.0076

<sup>1</sup> – Corrected to 15% oxygen on a dry basis and averaged over a three-hour rolling average using hourly averages computed in accordance with South Coast Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications (Rule 218.3).

<sup>2</sup>– Corrected to 15% oxygen on a dry basis and averaged over 15 minutes

 $^{3}$ – Measured as carbon, corrected to 15% oxygen on a dry basis, and averaged over sampling time required by the test method

<sup>4</sup>– Applies to both filterable and condensable particulate matter

- (45) Time Extension
  - (A) The owner or operator of an electricity generating facility on Santa Catalina Island may submit a request to the Executive Officer for a

time extension of up to three years to meet the mass emission <u>limitlimits</u> specified in subparagraph (d)(2)(D) (d)(2)(E) and <u>extended pursuant to paragraph (d)(3)</u> provided the owner or operator:

- (i) Submits the request to the Executive Officer at least 365 days before the compliance <u>deadlinedeadlines</u> specified in subparagraph (d)(2)(D) clauses (d)(2)(E)(iii) and (d)(2)(E)(iv) and extended pursuant to paragraph (d)(3); and
- (ii) The request includes:
  - (AI) Identification of the electric generating units for which a time extension is needed;
  - $(\underline{B}\underline{II})$  The reason(s) a time extension is needed;
  - (CIII) Progress of replacing or retrofitting the electric generating units;
  - (Đ<u>IV</u>) A description of the technology or technologies that will be used to achieve the mass emission limit; and
  - $(\underline{EV})$  The length of time requested.
- (B) Any request for a time extension will be made available by the Executive Officer for public review no less than 30 days prior to approval.
- $(\underline{BC}$  The Executive Officer will approve or disapprove the request for a
- ) time extension. Approval or disapproval will be based on the following criteria:
- (4<u>5</u>) ( $\underline{BC}$  (i) The owner or operator prepared the request for a time extension ) in compliance with subparagraph (d)(4<u>5</u>)(A); and
  - (ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed that demonstrates to the Executive Officer that there are extenuating circumstances that necessitate additional time to complete implementation. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, land acquisition contracts, permit applications, and purchase orders.
  - $(\underline{CD}$  If the Executive Officer approves the request for a time extension, the
  - ) owner or operator shall pay a mitigation fee within 30 days of the date

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of approval. The mitigation fee shall be 100,000/year, or any portion of a year, after the compliance date specified in subparagraph (d)(2)(D) clauses (d)(2)(E)(iii) and (d)(2)(E)(iv).

(56) Startup, Shutdown, and Tuning Requirements

The NOx emission limits in Table 1 and the NOx, carbon monoxide, and volatile organic compounds <u>emissionsemission</u> limits in Table 23 shall not apply during startup and shutdown, pursuant to Rule 429.2, or tuning, if limitations for duration and number of tunings are included in the Permit to Operate.

- $(\underline{67})$  City of Glendale
  - (A) Until compliance with the provisions pursuant to paragraph (d)(1) is achieved, the City of Glendale or any of its successors, shall not operate its boilers unless at least one of the following is met:
    - Emission rate of 0.20 pounds of NOx per net Megawatt-Hour. NOx emissions during startups and shutdowns of boilers, up to a maximum of 12 hours for each event, shall not be included in the determination of the emissions rate if five or fewer boilers are in operation during this period; or
    - (ii) Emission cap of 390 pounds of NOx per day.
  - (B) Until compliance with paragraph (d)(1) is achieved, the City of Glendale shall not emit total quantities of NOx from all boilers in excess of 35 tons of NOx per calendar year. If Grayson combined cycle gas turbine Unit 8BC cannot produce electricity because of a breakdown for 30 continuous days or more, the annual NOx emissionsemission limit shall be increased by 65 pounds per day, up to a maximum of 41 tons per year
- (67) (C) A violation of any requirement specified in subparagraph (d)(67)(A) or (d)(67)(B) shall constitute a violation of this rule for every applicable unit operating during the exceedance period.
- (7) On or before July 1, 2022, the owner or operator of a RECLAIM NOx facility or former RECLAIM NOx facility, excluding the owner or operator of an electricity generating facility on Santa Catalina Island, shall submit an application for a change of permit conditions to reconcile their permit(s) with Rule 1135.

- (8) On or before January 1, 2023, the owner or operator of an electricity generating facility on Santa Catalina Island shall submit an application for a change of permit conditions to reconcile their permit(s) with Rule 1135 or for a Permit to Construct(s) to comply with paragraphs (d)(2) and (d)(3).
- (9) On or before January 1, 2023, the owner or operator a non-RECLAIM NOx facility shall submit an application for a change of permit conditions to reconcile their permit(s) with Rule 1135.
- (e) Monitoring, Recordkeeping, and Reporting
  - (1) RECLAIM NO<sub>x</sub> Facility

The owner or operator of each RECLAIM NOx facility subject to Rule 1135 shall comply with South Coast AQMD Rule 2012—Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions to demonstrate compliance with the NOx emission limits of this rule, except as provided in paragraph (e)(3).

- (2) Former RECLAIM NO<sub>x</sub> and Non-RECLAIM NO<sub>x</sub> Facilities The owner or operator of each former RECLAIM NOx facility and non-RECLAIM NOx facility, shall comply with South Coast AQMD Rule 218 – Continuous Emission Monitoring (Rule 218), South Coast AQMD Rule 218.1 – Continuous Emission Monitoring Performance Specifications (Rule 218.1), South Coast AQMD Rule 218.2 – Continuous Emission Monitoring System: General Provisions (Rule 218.2), South Coast AQMD Rule 218.3– Continuous Emission Monitoring System: Performance Specifications, and 40 CFR Part 75 to demonstrate compliance with the NOx emission limits of this rule, except as provided in paragraph (e)(3).
- (3) The owner or operator of a Santa Catalina Island NZE electric generating unit rated  $\leq 0.5$  MW or a Santa Catalina Island ZE electrical generating unit is not required to install or operate a continuous emission monitoring system (CEMS).
- (4) The owner or operator of an NZE electric generating unit located on Santa Catalina Island shall determine the annual NOx mass emissions to demonstrate compliance with subparagraph (d)(2)(E) by utilizing the following method:
  - (A) <u>Measure and record the Megawatt-Hours of each Santa Catalina NZE</u> electric generating unit rated  $\leq 0.5$  MW;

- (B) Multiply the total annual Megawatt-Hours from all Santa Catalina Island NZE electric generating units rated  $\leq 0.5$  MW by the emission factor of 0.07 lb/MW-hrs and convert to tons per year; and
- (5) The owner or operator of a Santa Catalina Island NZE electric generating unit rated ≤ 0.5 MW shall maintain records onsite for a minimum of five years of all data used to calculate the annual NOx mass emissions pursuant to paragraph (e)(4) and make available to the Executive Officer upon request.
- (6) The owner or operator of a Santa Catalina Island NZE electric generating unit rated  $\leq 0.5$  MW shall install a non-resettable device to continuously record the Megawatt-Hours of each unit.
- (3<u>7</u>) Backup Units

Until July 1, 2026, the owner or operator of a backup unit is not subject to paragraph (e)(2), provided that the owner or operator, for each backup unit:

- (A) Install, maintain, and operate a totalizing fuel meter or any device approved by the Executive Officer to be equivalent in accuracy, reliability, reproducibility, and timeliness, to measure quarterly fuel usage;
- (B) Conduct annual source testing to demonstrate compliance with the NOx emission limits as specified on the Permit to Operate according to South Coast AQMD Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling, South Coast AQMD Method 7.1 – Determination of Nitrogen Oxide Emissions from Stationary Sources, U.S. EPA Method 20 – Nitrogen Oxides from Stationary Gas Turbines; or U.S. EPA Method 7E – Nitrogen Oxide - Instrumental Analyzer;
- (C) Conduct the initial source test pursuant to subparagraph (e)(37)(B) within six months from the time the facility becomes a former RECLAIM NOx facility or within one year from the date of the last source test, whichever is later;
- (D) Submit a source test protocol to the Executive Officer for written approval at least 60 days before the scheduled date of the source

test(s) required in subparagraphs  $(e)(\underline{37})(B)$  and  $(e)(\underline{37})(C)$ . The source test protocol shall include the following:

- (i) Brief descriptions of the unit to be tested and process;
- (ii) Operating conditions under which the test(s) will be conducted;
- (iii) Planned sampling parameters, including a process schematic diagram showing the ports and sampling locations, with the dimensions of ducts and stacks at the sampling locations and distances of flow disturbances from the sampling locations;
- (iv) Brief description of test, sampling, and analytical methods used to measure pollutant, temperature, flow rates, and moisture;
- (v) Description of calibration and quality assurance procedures; and
- (vi) Information on equipment, logistics, personnel, and other resources necessary to conduct an efficient and coordinated source test;
- (E) In lieu of subparagraph (e)(37)(D), a previously approved source test protocol may be used if:

(3<u>7</u>) (E) (i) The unit has not been altered in a manner that requires a permit modification;

- (ii) The permit emission factors or concentration limits or equipment-specific or category-specific emission rates have not changed since the previous test;
- (iii) The approved source test protocol is representative of the operation and configuration of the unit;
- (iv) The approved source test protocol meets the requirements in clauses (e)(37)(D)(i) through (e)(37)(D)(vi); and
- (v) The approved source test protocol references the test method(s) required in subparagraph (e)(<u>37</u>)(B);
- (F) Submit a report of quarterly NOx mass emissions to the Executive Officer, using a format approved by the South Coast AQMD, as calculated using the emission factor specified in the Permit to Operate within 30 days after the end of the first three quarters and 60 days after the end of the fourth quarter of a compliance year;
- (G) Tune-up once a year to manufacturer's specifications;
- (H) Maintain the following records on-site for five years and make this information available to the South Coast AQMD upon request:

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- (i) Data collected and calibration records from the totalizing fuel meter or the Executive Officer-approved device as required by subparagraph (e)(<u>37</u>)(A);
- (ii) Source test protocols and reports as required by subparagraphs
   (e)(<u>37</u>)(B) and (e)(<u>37</u>)(D) or (e)(<u>37</u>)(E);
- (iii) Quarterly NOx mass emission reports as required by subparagraph (e)(37)(F), including data used to calculate the NOx mass emissions; and
- (iv) Record of each tune-up as required by subparagraph
   (e)(<u>37</u>)(G); and
- Within six months of becoming a former RECLAIM NOx facility, submit a permit application that limits total annual operation time to no more than 1,300 hours per calendar year.
- (48) City of Glendale

The City of Glendale or any of its successors shall demonstrate compliance with paragraph (d)( $6\underline{7}$ ) and calculate NOx emission rate in pounds of NOx per net Megawatt-Hour or NOx emission cap in pounds of NOx per day and tons of NOx per calendar year as established in their approved <del>Continuous</del> <del>Emission Monitoring System (CEMS) <u>CEMS</u> Plan.</del>

(59) Diesel Internal Combustion Engines

The owner or operator of each diesel internal combustion engine electric generating unit shall comply with the following provisions:

- (A) Demonstrate compliance with the carbon monoxide and volatile organic compound <u>emissionsemission</u> limits of this rule pursuant to South Coast AQMD Rule 1110.2 Emissions from Gaseous- and Liquid-Fueled Engines subdivisions (f) Monitoring, Testing, Recordkeeping and Reporting and (g) Test Methods;
- (B) Conduct yearly source test for particulate matter emissions according to South Coast AQMD Method 5.1 – Determination of Particulate Matter Emissions from Stationary Sources Using a Wet Impingement Train or South Coast AQMD Method 5.2 – Determination of Particulate Matter Emissions from Stationary Sources Using Heated Probe and Filter to demonstrate compliance with the particulate matter emission limit. The yearly emission limit shall be defined as a period of 12 consecutive months determined on a rolling basis with a

new 12-month period beginning on the first day of each calendar month;

- (C) Submit a source test protocol to the Executive Officer for written approval at least 60 days before the scheduled date of the source test(s) required in subparagraph (e)(59)(B). The source test protocol shall include the information specified in clauses (e)(37)(D)(i) through (e)(37)(D)(vi); and
- (D) In lieu of subparagraph (e)(59)(C), a previously approved source test protocol may be used if the approved source test protocol meets all the criteria specified in clauses (e)(37)(E)(i) through (e)(37)(E)(v).
- (61 Catalytic and Non-Catalytic Control Devices with Ammonia Injection
- 0)
- (A) The owner or operator of each electric generating unit with a catalytic or non-catalytic control device with ammonia injection shall conduct quarterly source tests to demonstrate compliance with the ammonia emission limit specified in the Permit to Operate according to South Coast AQMD Method 207.1 – Determination of Ammonia Emissions from Stationary Sources during the first 12 months of operation of the electric generating unit with a catalytic or non-catalytic control device with ammonia injection and annually thereafter when four consecutive quarterly source tests demonstrate compliance with the ammonia emission limit specified in the Permit to Operate. If an annual test is failed, the owner or operator shall conduct four consecutive quarterly source tests to demonstrate compliance with the ammonia emission limit specified in the Permit to Operate four consecutive quarterly source tests to demonstrate compliance with the ammonia emission limit specified in the Permit to Operate four consecutive quarterly source tests to demonstrate compliance with the ammonia emission limit specified in the Permit to Operate prior to resuming annual source tests.
- (61 (B) In lieu of complying with subparagraph (e)(610)(A), the owner or operator of an electric generating unit with a catalytic or non-catalytic control device with ammonia injection may utilize ammonia CEMS certified under an approved South Coast AQMD protocol to demonstrate compliance with the ammonia emission limit specified in the Permit to Operate.
- (71 The owner or operator of each former RECLAIM NOx facility and non-
- 1) RECLAIM NOx facility shall maintain information pursuant to this subdivision at the facility for a period of five years, except that all data gathered or computed for intervals of less than 15 minutes shall be

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maintained for a minimum of 48 hours, and made available to South Coast AQMD upon request.

- (<u>81</u> Operations Recordkeeping
- <u>2</u>) The owner or operator of each former RECLAIM NOx facility and non-RECLAIM NOx facility shall maintain records, on a daily basis, for the following parameter(s) or item(s):
  - (A) Time and duration of startups and shutdowns;
  - (B) Total hours of operation;
  - (C) Quantity of fuel consumption;
  - (D) Cumulative hours of operation to date for the calendar year;
  - (E) Megawatt-hours of electricity produced; and
  - (F) Net <u>megawatt-hours</u><u>Megawatt-Hours</u> electricity produced.
- (f) Use of Liquid Petroleum Fuel
  - (1) Force Majeure Natural Gas Curtailment

The owner or operator of an electric generating unit shall not be subject to the NOx <u>emissionsemission</u> limits specified in subdivision (d) during force majeure natural gas curtailment when the use of liquid petroleum fuel is required and the electric generating unit may burn liquid petroleum fuel, provided that:

- (1) (A) Within 15 days of each occurrence, the owner or operator of each electricity generating facility submits an affidavit signed by a corporate officer affirming that liquid petroleum fuel was burned due to force majeure natural gas curtailment; and
  - (B) Each electric generating unit, when it burns liquid petroleum fuel, emits NOx at no more than the applicable unit-specific liquid petroleum fuel NOx emission limit specified in the Permit to Operate.
- (2) Distillate Fuel Oil Readiness Testing

The owner or operator of an electric generating unit shall not be subject to the NOx <u>emissionsemission</u> limits specified in subdivision (d) during distillate fuel oil readiness testing and the electric generating unit may burn liquid petroleum fuel, provided that:

 (A) Distillate fuel oil readiness testing does not exceed 60 minutes per week;

- (B) Each electric generating unit, when it burns liquid petroleum fuel, emits NOx at no more than the applicable unit-specific liquid petroleum fuel NOx emission limit specified in the Permit to Operate;
- (C) The owner or operator conducts distillate fuel oil readiness testing only after the equipment has reached the emission limits specified in paragraph (d)(1) while firing on natural gas and no later than 60 minutes after achieving emission limits specified in paragraph (d)(1) while firing on natural gas; and
- (D) Each distillate fuel oil readiness test commences with the equipment switching from natural gas to liquid petroleum fuel and concludes with the equipment switching from liquid petroleum fuel to natural gas.
- (3) Source Testing and Fuel Flow Meter Calibration

The owner or operator of an electric generating unit shall not be subject to the NOx emission limits specified in subdivision (d) when it burns liquid petroleum fuel during emissions source testing or annual fuel flow meter calibration, and the electric generating unit may burn liquid petroleum fuel for emissions source testing or annual fuel flow meter calibration as specified by South Coast AQMD rules or the Permit to Operate, including initial certifications of CEMS and semi-annual Relative Accuracy Test Audits (RATAs). The owner or operator shall only conduct RATA tests and annual fuel flow calibration concurrently with distillate fuel oil readiness testing or during force majeure natural gas curtailment when the use of liquid petroleum fuel is required.

- (g) Exemptions
  - (1) Combined Cycle Gas Turbines

The owner or operator of a combined cycle gas turbine installed prior to November 2, 2018 shall not be subject to paragraph (d)(1) for that combined cycle gas turbine, provided that:

- (A) The Permit to Operate as of November 2, 2018 includes a condition limiting the NOx concentration to 2.5 ppmv NOx or less averaged over 60 minutes at 15 percent oxygen on a dry basis; and
- (B) The NOx and ammonia limits, averaging times, and startup, shutdown, and, if applicable, tuning requirements specified on the Permit to Operate as of November 2, 2018 are retained.

# (2) Once-Through-Cooling Electric Generating Units to Be Retired Until December 31, 2029, the owner or operator of an electric generating unit subject to the Clean Water Act Section 316(b) shall not be subject to paragraph (d)(1) for that electric generating unit, provided that:

- (A) The owner or operator retires the electric generating unit on or before the compliance date set forth in Table 1 of Section 2(B) of the State Water Resources Control Board's Statewide Water Quality Control Policy on the Use of Coastal Estuarine Waters for Power Plant Cooling (Once-Through-Cooling Policy) implementing Section 316(b) of the Clean Water Act;
- (B) The NOx and ammonia limits, averaging times, and startup, shutdown, and, if applicable, tuning requirements specified on the Permit to Operate as of November 2, 2018 are retained;
- (C) On or before January 1, 2023, the owner or operator notifies South Coast AQMD of the compliance dates set forth in Table 1 of Section 2(B) of the Once-Through-Cooling Policy; and
- (D) Within 3 months of approval of an extension of the compliance date set forth in Table 1 of Section 2(B) of the Once-Through-Cooling Policy, the owner or operator notifies South Coast AQMD of the extension. This extension is not applicable to facilities that have utilized the Modeling and Offset Exemptions in Rule 1304 – Exemptions paragraph (a)(2) and the associated replacement electric generating unit is in operation.

#### (3) Diesel Internal Combustion Engines

The owner or operator of a diesel internal combustion engine installed prior to November 2, 2018 shall not be subject to paragraph (d)(34) for that diesel internal combustion engine provided that:

- (A) The Permit to Operate as of November 2, 2018 includes a condition limiting the NOx concentration to 51 ppmv NOx or less averaged over 60 minutes at 15 percent oxygen on a dry basis; and
- (B) The NOx, ammonia, carbon monoxide, volatile organic compounds, and particulate matter limits, averaging times, and startup and shutdown requirements specified on the Permit to Operate as of November 2, 2018 are retained.
- (4) Low-Use
  - (A) Gas Turbines

The owner or operator of a gas turbine installed prior to November 2, 2018 shall not be subject to <u>emissionsemission</u> limits specified under paragraph (d)(1) for that gas turbine, provided that the gas turbine:

- Maintains an annual capacity factor of less than twenty-five percent each calendar year;
- Maintains an annual capacity factor of less than ten percent averaged over three consecutive calendar years on a rolling basis; and
- (iii) Retains the NOx and ammonia limits, averaging times, and startup, shutdown, and, if applicable, tuning requirements specified on the Permit to Operate as of November 2, 2018.
- (B) Boilers

The owner or operator of a boiler installed prior to November 2, 2018 shall not be subject to paragraph (d)(1) for that boiler, provided that the boiler:

- (i) Maintains an annual capacity factor of less than two-and-onehalf percent each calendar year;
- Maintains an annual capacity factor of less than one percent averaged over three consecutive calendar years on a rolling basis; and
- (4) (B) (iii) Retains the NOx and ammonia limits, averaging times, and startup and shutdown requirements specified on the Permit to Operate as of November 2, 2018.
  - (C) Initial Requirement for Low-Use Exemption

The owner or operator of an electricity generating facility that elects the low-use exemption pursuant to subparagraph (g)(4)(A) or (g)(4)(B) for a gas turbine or boiler shall submit permit applications by July 1, 2022 for each electric generating unit requesting the change of permit conditions to incorporate the low-use exemption.

- (D) Eligibility for Low-Use Exemption Eligibility of the low-use exemption shall be determined annually for each electric generating unit and reported to the Executive Officer no later than March 1 following each reporting year.
- (E) Exceedance of Low-Use Exemption
  - (i) If an electric generating unit with a low-use exemption pursuant to subparagraph (g)(4)(A) or (g)(4)(B) exceeds the

#### <u>PAR</u>1135 - 20

annual or three year average annual capacity factor limit, such exceedance shall be a violation of this rule and the owner or operator of that electric generating unit is subject to issuance of a notice of violation each year there is an exceedance for each annual and/or three-year exceedance.

- (ii) If an electric generating unit with a low-use exemption pursuant to subparagraph (g)(4)(A) or (g)(4)(B) exceeds the annual or three-year average annual capacity factor limit, the owner or operator of that electric generating unit shall:
  - (AI) Within six months of the date of reported exceedance of subparagraph (g)(4)(A) or (g)(4)(B), submit complete permit applications to repower, retrofit, or retire that electric generating unit;
  - (BII) Submit a CEMS Plan within six months from the date of complete permit application submittal pursuant to subclause (g)(4)(E)(ii)(A); and
  - (CIII Not operate that electric generating unit in a manner
  - ) that exceeds the <u>emissionsemission</u> limits listed in Table I after two years from the date of the reported exceedance of subparagraph (g)(4)(A) or (g)(4)(B).
- (5) Internal combustion engines located on Santa Catalina Island are exempt from subdivision (f).

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

# **Final Staff Report** Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from **Electricity Generating Facilities**

#### October 2024

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# **EXECUTIVE SUMMARY**

South Coast Air Quality Management District (South Coast AQMD) Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135), is an industry-specific rule which applies to electric generating units (i.e. boilers, turbines, engines, etc.) at investor-owned electric utilities, at publicly owned electric utilities, or which have a generation capacity of at least 50 Megawatts of electrical power for distribution in the state or local electrical grid system.

During the 2022 amendment of Rule 1135, stakeholders urged staff to conduct a Best Available Retrofit Control Technology (BARCT) analysis of electric generating units located on Santa Catalina Island emphasizing zero-emission (ZE) technologies. In response to stakeholder comments, staff performed a BARCT analysis with a focus on ZE and near-zero emission technologies to repower Santa Catalina Island.

Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (PAR 1135) will establish oxides of nitrogen (NOx) emission limits for electric generating units located on Santa Catalina Island. PAR 1135 includes monitoring, reporting, and recordkeeping requirements for electric generating units located on Santa Catalina Island. One electricity generating facility with a total of 29 electric generating units is affected by PAR 1135.

The proposed final NOx limit of 6 tpy can be achieved using a combination of Tier 4 Final diesel engines, Santa Catalina Island Near-Zero Emission (NZE) electric generating units, and Santa Catalina Island Zero-Emission (ZE) electric generating units. Staff assumed a combination of 30% ZE, 50% NZE, and 20% diesel internal combustion engines for the purposes of the cost-effectiveness analysis. The proposed final NOx emission limit is estimated to reduce NOx emissions at the electricity generation facility located on Santa Catalina Island by 65.3 tons per year, or 0.18 tons per day. PAR 1135 will partially implement Control Measure for Large Combustion Sources, L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, of the 2022 Air Quality Management Plan (2022 AQMP).<sup>1</sup>

PAR 1135 was developed through a public process. Six Working Group meetings were held on May 5, 2022, August 4, 2022, November 8, 2022, January 19, 2023, March 27, 2024, and June 13, 2024. Staff also reported on the progress of the BARCT assessment to the South Coast Air Quality Management District Stationary Source Committee on August 19, 2022. In addition, Public Workshops were held on February 22, 2023, and on July 31, 2024. Staff also conducted multiple site visits as part of this rule development process and has met numerous times with facility operators, technology vendors, and interested stakeholders.

<sup>&</sup>lt;sup>1</sup> South Coast AQMD, 2022 AQMP, <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16</u>

# **CHAPTER 1: BACKGROUND**

INTRODUCTION BACKGROUND REGULATORY BACKGROUND AFFECTED FACILITIES PUBLIC PROCESS

# INTRODUCTION

Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (PAR 1135) applies to electric generating units at electricity generating facilities that are investor-owned electric utilities, at publicly owned electric utilities, or which have a generation capacity of at least 50 Megawatts (MW) of electrical power for distribution in the state or local electrical grid system. PAR 1135 is needed to update oxides of nitrogen (NOx) emission limits for electricity generating facilities located on Santa Catalina Island to reflect Best Available Retrofit Control Technology (BARCT).

# BACKGROUND

The 2022 amendment of South Coast Air Quality Management District (South Coast AQMD) Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135) included a revision to the averaging time for diesel internal combustion engines located on Santa Catalina Island to demonstrate compliance with emission limits. Stakeholders commented that an updated BARCT assessment was warranted due to the change in averaging time and that the BARCT assessment should emphasize zero-emission (ZE) technologies. The adopted resolution directed staff to re-initiate rule development in 2022 that included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and near-zero emission (NZE) technologies.

In December 2022, the South Coast AQMD adopted the 2022 Air Quality Management Plan (2022 AQMP)<sup>1</sup> which includes a series of control measures to achieve the 2015 8-hour ozone National Ambient Air Quality Standard. Control Measure for Large Combustion Sources, L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, of the 2022 AQMP focuses on assessing low NOx and ZE technologies for power generation, and specifically mentions the replacement of existing diesel internal combustion engines with lower-emitting technologies.

#### **REGULATORY BACKGROUND**

After a series of NOx rules for utility boilers were adopted in the 1970s, South Coast AQMD Rule 1135.1 – Controlling Emissions of Oxides of Nitrogen from Electric Power Generating Equipment<sup>2</sup> (Rule 1135.1) was adopted in 1980. Rule 1135.1applied to electric utilities with generating system capacity over 500 MW and required the use of least NOx dispatch to minimize NOx emissions. In 1982, the California Superior Court entered a judgment vacating Rule 1135.1, as the result of a lawsuit seeking to rescind Rule 1135.1. The judgement specified a decreasing annual NOx emissions cap until 1990 when a final NOx emissions cap was established.

Rule 1135 was adopted in 1989 and applied to electric power generating steam boiler systems, repowered units, and alternative electricity generating sources. A NOx system-wide average emission limit and a daily NOx emissions cap was established for each utility system. Additionally, Rule 1135 required Emission Control Plans and continuous emissions monitoring systems (CEMS).

Rule 1135 was amended in December 1990 to resolve implementation and enforceability issues raised by the California Air Resources Board (CARB). This amendment included accelerated

<sup>&</sup>lt;sup>1</sup> South Coast AQMD, 2022 Air Quality Management Plan, <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp.pdf?sfvrsn=16</u>

<sup>&</sup>lt;sup>2</sup> South Coast AQMD, Rule 1135.1, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1135-1.pdf?sfvrsn=4</u>

retrofit dates for emission controls, unit-by-unit emission limits, modified compliance plan and monitoring requirements, computerized telemetering, and an amended definition of alternative resources. Rule 1135 was amended again in July 1991 to address additional staff recommendations regarding system-wide emission rates, daily emission caps, annual emission caps, oil burning, and cogeneration, along with outstanding issues related to modeling and BARCT analysis. The United States Environmental Protection Agency (U.S. EPA) approved Rule 1135 into the State Implementation Plan on August 11, 1998.

When the REgional Clean Air Incentives Market (RECLAIM) program was adopted in 1993, electricity generating facilities were included in NOx RECLAIM with the exception of electricity generating facilities that were owned and operated by the City of Burbank, City of Glendale, and the City of Pasadena that were allowed to opt-in to the program. The cities of Burbank and Pasadena opted in to RECLAIM, while the City of Glendale remained regulated by command-and-control rules. In response to an increased demand for power generation and delayed installation of controls by electricity generating facilities, in May 2001, the South Coast AQMD Governing Board adopted South Coast AQMD Rule 2009 – Compliance Plan for Power Producing Facilities (Rule 2009),<sup>3</sup> which required installation of BARCT through compliance plans at electricity generating facilities. As a result, much of the equipment at electricity generating facilities was retrofitted or replaced to meet lower NOx emission limits. Diesel internal combustion engines providing power to Santa Catalina Island were not subject to Rule 2009 because the facility did not qualify as a Power Producing Facility because its capacity was less than 50 MW.

In 2018, Rule 1135 was amended to establish BARCT NOx limits which are needed to transition electric generating facilities in the RECLAIM program to a command-and-control regulatory structure and to implement Control Measure CMB-05: Further NOx Reductions from RECLAIM Assessment of the 2016 Air Quality Management Plan (2016 AQMP)<sup>4</sup> and Assembly Bill 617. The 2018 amendment expanded Rule 1135 applicability to all electric generating units at RECLAIM NOx, former RECLAIM NOx, and non-RECLAIM NOx electricity generating facilities. The amendment updated emission limits to reflect current BARCT levels and to provide implementation timeframes for boilers, gas turbines, and internal combustion engines located on Santa Catalina Island. Additionally, the amendment established provisions for monitoring, reporting, and recordkeeping, and exemptions from specific provisions.

Rule 1135 was amended on January 7, 2022, to remove ammonia limits, update provisions for Continuous Emission Monitoring Systems, reference South Coast AQMD Rule 429.2 – Startup and Shutdown Exemption Provisions for Oxides of Nitrogen From Electricity Generating Facilities<sup>5</sup> for startup and shutdown requirements, and revise requirements for diesel internal combustion engines on Santa Catalina Island. Staff was directed to re-initiate rule development to include a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies to address the large amount of pollution generated from such a small and outdated source of electricity.

<sup>&</sup>lt;sup>3</sup> South Coast AQMD, Rule 2009, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xx/rule-2009-compliance-plan-for-power-producing-facilities.pdf?sfvrsn=4</u>

<sup>&</sup>lt;sup>4</sup> South Coast AQMD, 2016 AQMP, <u>www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15</u>

<sup>&</sup>lt;sup>5</sup> South Coast AQMD, Rule 429.2, <u>http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-429-2.pdf?sfvrsn=9</u>

Nearly all electricity generating facilities in the South Coast Air Basin besides the equipment on Santa Catalina Island of have been operating at BARCT NOx limit for several years already.

#### AFFECTED FACILITIES AND EQUIPMENT

The proposed amendments to Rule 1135 impacts one electricity generating facility located on Santa Catalina Island. The electricity generating facility on Santa Catalina Island currently operates six diesel internal combustion engines and 23 microturbines to generate power. Over 90 percent of the power generated at the electricity generating facility on Santa Catalina Island is from diesel internal combustion engines. The diesel internal combustion engines on Santa Catalina Island catalina Island produce approximately 10 to 70 times more NOx than other electric generating units subject to Rule 1135. The electricity generating facility on Santa Catalina Island produces more than 10 percent of the NOx emissions from all electricity generating facilities in South Coast AQMD while providing less than 0.06% of the power<sup>6</sup>. **Table 1-1** contains the equipment affected by PAR 1135.

Equipment Type	Rating (MW)	Construction Year	NOx Emissions <sup>7</sup>
Diesel Engine Unit 7	1	1958	97 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 8	1.5	1964	97 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 10	1.125	1968	140 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 12	1.5	1976	82 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 14	1.4	1985	103 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 15	2.8	1995	51 ppmv (15% O <sub>2</sub> , dry)
Microturbines (23 units)	1.49	2011	0.07 lb/MW-hr

Table 1-1: PAR 1135 Affected Equipment

# **PUBLIC PROCESS**

Development of PAR 1135 was conducted through a public process. Six Working Group meetings were held on May 5, 2022, August 4, 2022, November 8, 2022, January 19, 2023, March 27, 2024, and June 13, 2024. The Working Group is composed of representatives from businesses, environmental groups, public agencies, and consultants. The purpose of the Working Group meetings is to discuss proposed concepts and work through the details of South Coast AQMD's proposal. Staff also reported on the progress of the BARCT assessment to the South Coast AQMD Stationary Source Committee on August 19, 2022. Additionally, Public Workshops were held on February 22, 2023 and on July 31, 2024. The purpose of the Public Workshops is to present the proposed rule language to the general public and stakeholders and to solicit comment. Staff also

<sup>&</sup>lt;sup>6</sup> Based on the Final Staff Report for the 2018 amendment to Rule 1135 (9 MWh/15,904 MWh and 0.2 tpd/1.9 tpd)

<sup>&</sup>lt;sup>7</sup> NOx emissions for diesel engines calculated by using the uncontrolled NOx emissions and control efficiency specified in Southern California Edison's Best Available Control Technology and Alternative Analysis for Pebbly Beach Generating Station (Version 00; Revised April 30, 2021) and NOx emissions for microturbines reflect the emission standard in the California Air Resources Board Distributed Generation Certification Regulation

conducted multiple site visits as part of this rule development process and has met with individual facility operators, technology vendors, and interested stakeholders.

# **CHAPTER 2: BARCT ASSESSMENT**

# INTRODUCTION

#### **BARCT ANALYSIS APPROACH**

Assessment of South Coast AQMD Regulatory Requirements Assessment of Emission Limits for Existing Units Other Regulatory Requirements Assessment of Pollution Control Technologies Initial BARCT Emission Limit and Other Considerations Cost-Effectiveness and Incremental Cost-Effectiveness Analyses BARCT Emission Limit Recommendation

# INTRODUCTION

South Coast Air Quality Management District (South Coast AQMD) conducted an assessment of Best Available Retrofit Control Technology (BARCT) for electric generating units located on Santa Catalina Island. Staff will reevaluate BARCT for the remaining electricity generating facilities in the future to fully implement Control Measure for Large Combustion Sources, L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, from the 2022 Air Quality Management Plan (2022 AQMP).<sup>1</sup>

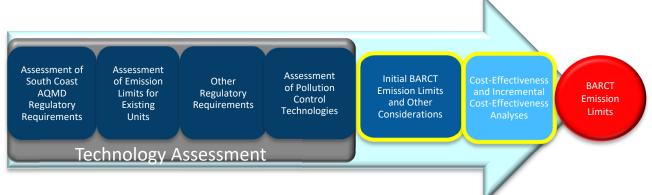
BARCT is defined in the Health and Safety Code Section 40406 as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." Consistent with state law, BARCT emission limits take into consideration environmental impacts, energy impacts, and economic impacts. In addition to oxides of nitrogen (NOx) reductions sought in the proposed amended rule, staff identified potential environmental and energy effects of the proposed rule through the California Environmental Quality Act (CEQA) process. Economic impacts are assessed at the equipment category level by a review of cost-effectiveness and incremental cost-effectives contained in this report and at the macro level as part of the socioeconomic impact assessment contained in a separate report.

# BARCT ANALYSIS APPROACH

The BARCT analysis approach follows a series of steps conducted for each equipment category and fuel type. For Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (PAR 1135), internal combustion engines, fuel cells, linear generators, solar photovoltaic (PV) cells, and tidal and current energy harvesting systems were analyzed.

The steps for BARCT analysis consist of:

- Assessment of South Coast AQMD Regulatory Requirements
- Assessment of Emissions Limits for Existing Units
- Other Regulatory Requirements
- Assessment of Pollution Control Technologies
- Initial BARCT Emission Limits and Other Considerations
- Cost-Effectiveness and Incremental Cost-Effectiveness Analyses
- BARCT Emission Limits



<sup>&</sup>lt;sup>1</sup> South Coast AQMD, 2022 Air Quality Management Plan, <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp.pdf?sfvrsn=16</u>

#### Assessment of South Coast AQMD Regulatory Requirements

As part of the BARCT assessment, staff reviewed existing South Coast AQMD regulatory requirements that affect NOx emissions for electric generating units located on Santa Catalina Island. NOx emissions from electric generating units located on Santa Catalina Island are regulated under South Coast AQMD Rule 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Systems (Rule 1135) and Regulation XX – Regional Clean Air Incentives Market (RECLAIM) (Regulation XX).

The RECLAIM program limits NOx emissions from electricity generating facilities, but does not limit emissions or establish concentration limits by equipment category or fuel type. However, emissions limits are established at the time of permitting, and permits may include concentration limits for NOx and emissions limits for non-RECLAIM pollutants such as particulate matter. A facility's NOx allocations are diminished over time, requiring facilities to lower emissions or to purchase credits from other facilities that have lowered emissions below their allocations.

Rule 1135 established interim NOx emission limits for the electricity generating facility located on Santa Catalina Island, which includes a 50 tons per year NOx limit by January 1, 2024 and 45 tons per year NOx limit by January 1, 2025 from all electric generating units. Rule 1135 established a 13 ton per year final NOx limit from all electric generating units located on Santa Catalina Island on and after January 1, 2026, with an option for a three-year extension. Rule 1135 also requires new diesel combustion engines located on Santa Catalina Island to meet a 45 parts per million by volume (ppmv) NOx limit at 15% oxygen on a dry basis.

## Assessment of Emission Limits for Existing Units

Staff examined the current electric generating units located on Santa Catalina Island to assess emission limits. Permit limits for NOx were identified for all equipment to identify what is already being done in practice.

Six prime power diesel internal combustion engines are located on Santa Catalina Island. Five of these engines were installed more than 39 years ago and one was installed 29 years ago. All units are controlled with selective catalytic reduction. In 2003, the higher emitting units were retrofitted, while the lowest emitting unit was a new installation in 1995. The lowest permitted NOx limit for a diesel engine used for electricity generation in South Coast AQMD is 51 ppmv at 15% oxygen on a dry basis. The details of the diesel internal combustion engines subject to PAR 1135 are listed below in **Table 2-1** below. The NOx permit limit of 6.5 pounds per Megawatt hour (lbs/MW-hr) for the diesel internal combustion engines located on Santa Catalina Island is roughly 100 times higher than the California Air Resources Board (CARB) distributed generation emission standard for NOx at 0.07 lbs/MW-hr required for newly installed electric generating units.<sup>2</sup> PAR 1135's proposed definition of Santa Catalina Island near-zero emission (NZE) electric generating unit is based on CARB's distributed generation emission standard for NOx, which is equivalent to approximately 2.5 ppmv NOx at 15% oxygen on a dry basis.

The electricity generating facility located on Santa Catalina Island also operates 23 propane fired microturbines to supplement the six prime power diesel internal combustion engines. The

<sup>&</sup>lt;sup>2</sup> CARB, Final Regulation Order – Establish a Distributed Generation Certification Program, <u>https://ww2.arb.ca.gov/sites/default/files/barcu/regact/dg01/finreg.pdf?\_ga=2.89974301.708521970.1675193247-969541522.1644423250</u>

microturbines have registrations pursuant to Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II. The microturbine registration operating parameters specify that each gas turbine shall be certified with the State of California at the date of manufacture. The California Air Resources Board Distributed Generation Certification Regulation specifies a NOx emission limit of 0.07 lb/MW-hr.

Table 2-1: Prime Diesel Internal Combustion Engines at the Electricity Generating Facility
Located on Santa Catalina Island

Unit	Size (HP)	Output (MW)	Install Year	Retrofit Date	<b>Control</b> ^	NOx Permit Limit <sup>+</sup>
10	1575	1.125	1968	2003	SCR	6.5 lbs/Megawatt- hour (MW-hr)~
14	1950	1.4	1985	2003	SCR	6.5 lbs/MW-hr~
8	2150	1.5	1964	2003	SCR	6.5 lbs/MW-hr~
7	1500	1	1958	2003	SCR	6.5 lbs/MW-hr~
12	2200	1.5	1976	2003	SCR	6.5 lbs/MW-hr~
15	3900	2.8	1995	None	SCR	51 ppmv at 15% O <sub>2</sub> , dry; 6.5 lbs/MW-hr~

<sup>+</sup>Actual NOx concentrations emitted are generally lower than the NOx permit limits

 $\sim$  Averaged over one calendar year, limit is based on total mass NOx emitted from Units 1 – 6 and microturbines  $^{\circ}$  SCR: Selective Catalytic Reduction

The baseline emissions from the six prime power diesel internal combustion engines located on Santa Catalina Island were determined to be 71.3 tons of NOx per year based on Annual Emission Report (AER) data.<sup>3</sup> Emissions from microturbines located on Santa Catalina were not included in the baseline emissions calculation because the current definition of electric generating unit in Rule 1135 does not include microturbines.

#### **Other Regulatory Requirements**

As part of the BARCT assessment, staff examined NOx limits for diesel internal combustion engines promulgated by Bay Area Air Quality Management District (BAAQMD), Sacramento Metropolitan Air Quality Management District (SMAQMD), and San Joaquin Valley Air Pollution Control District (SJVAPCD). **Table 2-2** below notes the NOx limits in the three air districts. The applicable equipment sizes differ by regulation.

<sup>&</sup>lt;sup>3</sup> Staff established baseline emissions for the electricity generating facility located on Santa Catalina Island by determining the average of emissions from prime power diesel internal combustion engines listed in the AERs for the reporting years of 2017, 2019, and 2021. The AER data for the 2018 reporting year was not available and the AER data or 2020 was not representative due to the COVID-19 pandemic, and therefore were not included.

Air District	Rule Number	<b>Rule Adoption Date</b>	NOx Limit
BAAQMD	Regulation 9, Rule 8	July 25, 2007	110 ppmv at 15% oxygen
SMAQMD	Rule 412	June 1, 1995	80 ppmv at 15% oxygen
SJVAPCD	Rule 4702	August 18, 2021	U.S. EPA Tier 4 <sup>+</sup> or meet certified compression-ignition engine standard <sup>~</sup>

<sup>+</sup> Applies to non-certified compression-ignited engines installed on or before January 1, 2015 (greater than 750 brake horsepower and less than 1,000 annual operating hours) and United States Environmental Protection Agency (U.S. EPA)-certified Tier 1 or Tier 2 compression-ignited engines

<sup>~</sup> Applies to U.S. EPA-certified Tier 3 or Tier 4 compression ignition engines

#### Assessment of Pollution Control Technologies

As part of the BARCT assessment, staff conducted a technology assessment to evaluate NOx pollution control technologies for electric generating units located on Santa Catalina Island. Staff reviewed scientific literature, vendor information, and strategies utilized in practice. The technologies are presented below and the applicability for use with various electric generating units is noted.

#### Fuel Cells

A fuel cell is a device capable of producing electrical energy from chemical reactions through the conversion of a fuel, such as hydrogen or propane, and an oxidizing agent, such as oxygen, into electricity. A fuel cell works similarly to a battery and is comprised of two electrodes, an anode and a cathode, surrounding an electrolyte membrane (**Figure 2-1**). A fuel such as hydrogen or propane is supplied to the anode and oxygen enters the cathode. The porous electrolyte membrane only allows positively charged protons to pass through to the cathode. Negatively charged electrons that cannot pass through the electrolyte membrane flow through an external circuit to generate an electric current. Oxygen, protons, and unused electrons combine in the catalytic cathode to produce water and heat as a byproduct of waste.

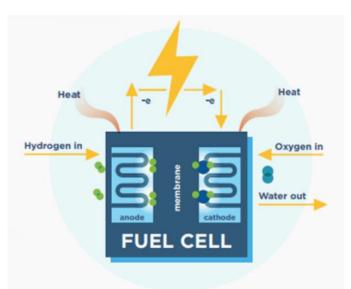


Figure 2-1: Typical Components of a Hydrogen Fuel Cell<sup>4</sup>

Fuel cells are two to three times more efficient than internal combustion engines and provide the flexibility to operate utilizing a variety of fuels such as hydrogen, propane, and biogas. The products of a hydrogen fuel cell are electricity, water, and heat. Alternately, propane fuel cells are expected to produce less than 2.5 ppmv of NOx emissions.<sup>5</sup> Fuel cells can also be combined to form a fuel cell stack in series to yield a higher voltage or in parallel for a higher current and are complementary to other energy technologies such as batteries, solar panels, and wind turbines.

#### Internal Combustion Engines

Internal combustion engines work by releasing energy through the combustion of a fuel and air mixture. Gasoline or diesel are most commonly used but renewable fuels such as natural gas, propane, or biodiesel may also be utilized. An internal combustion engine consists of two components working together, a fixed cylinder and a piston. Expanding combustion gases within the engine pushes the piston, which in turn rotates the crankshaft. This high-speed motion generates an electric current.

Non-road diesel internal combustion engines contribute considerably to air pollution. To improve air quality, the U.S. EPA developed Tier 4 emission standards for nonroad diesel internal combustion engines to reduce harmful emissions. Replacement with a U.S. EPA Tier 4 Final diesel engine is expected to produce less than 45 ppmv NOx. Replacement with a propane internal combustion engine is expected to produce less than 11 ppmv NOx. Staff also discussed with stakeholders the possibility of propane internal combustion engines meeting a 2.5 ppmv NOx limit with add-on control equipment. However, staff has not received further information regarding this control option.

<sup>&</sup>lt;sup>4</sup> Fuel Cell & Hydrogen Energy Association, Fuel Cell Basics, <u>https://www.fchea.org/fuelcells</u>

<sup>&</sup>lt;sup>5</sup> Combined Heath and Power Partnership, Catalog of CHP Technologies, Section 6. Technology Characterization – Fuel Cells, <u>https://www.epa.gov/sites/default/files/2015-</u>

<sup>07/</sup>documents/catalog\_of\_chp\_technologies\_section\_6.\_technology\_characterization\_-\_fuel\_cells.pdf

#### Linear Generators

A linear generator works to directly convert linear motion into electricity by compressing a mixture of fuel and air in a center reaction zone. The compression of fuel and air creates a chemical reaction that drives magnets through copper coils in a linear motion. Energy is created from the magnets attached to oscillators, which interact with the copper coils during linear motion to generate electricity (**Figure 2-2**).

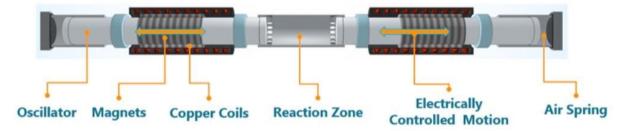


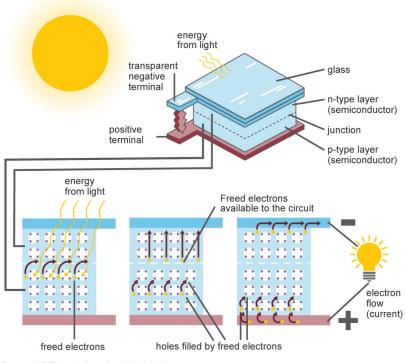
Figure 2-2: Components of a Linear Generator<sup>6</sup>

Linear generators maintain reaction temperatures below levels at which NOx forms, resulting in NZE. Further, linear generators do not require add-on control technologies such as selective catalytic reduction to control NOx emissions and have lower start-up emissions since it is not dependent on a catalyst to reach a destruction temperature. In addition, linear generators utilize a parametric monitoring system to maintain proper combustion to meet energy demands. The parametric monitoring system works by monitoring air and fuel flow to ensure proper air-to-fuel ratio is achieved, which also ensures emissions are under control. Lastly, linear generators also provide the flexibility to operate utilizing various fuels including hydrogen and propane.

#### Solar Photovoltaic Cells

Solar PV cells generate zero-emission (ZE) electricity by absorbing sunlight and utilizing light energy to create an electrical current. Light consists of photons vibrating at a range of wavelengths, and the wavelengths can be captured by a solar PV cell. Solar PV cells are made of a semiconductor material, typically silicon, that is treated in a way that allows it to interact with photons from sunlight. Sunlight energy absorbed by solar PV cells causes electrons to flow through two layers of silicon to create an electric field (**Figure 2-3**). The electric field forces loosened electrons to flow through in one direction, generating an electric current. Metal plates on each side of the solar PV cell collect those electrons and transfer them to wires where electrons then flow as electricity. Solar PV cells are wired together and installed on top of a substrate such as metal or glass to create solar panels, which are then installed collectively as a group to form a solar power system.

<sup>&</sup>lt;sup>6</sup> Greentech Media, "Mainspring Energy Lands \$150M Deal to Deploy its Linear Generators with NextEra," <u>https://www.greentechmedia.com/articles/read/mainspring-energys-linear-generators-to-roll-out-through-150m-deal-with-nextera</u>



Source: U.S. Energy Information Administration

Figure 2-3: Inside a Solar PV Cell<sup>7</sup>

Solar PV cells can supply power through different systems. Through an on-grid system, excess power is produced by solar panels fed to the local utility grid, which can supply power that solar panels are not producing (e.g. at night). Off-grid systems contain solar panels that charge batteries, where electricity is drawn. A hybrid system consists of solar panels connected to the grid and a battery backup to store excess power.

#### Tidal and Current Energy Harvesting Systems

Tidal and current energy harvesting systems are a renewable ZE technology that generate electricity from tidal streams and ocean currents (**Figure 2-4**). Tidal and current energy harvesting systems generate power by the wing utilizing the hydrodynamic lift force created by the underwater current and the turbine being pulled through the water at a water flow higher than the stream speed. The turbine shaft turns the generator which outputs electricity to the grid via a power cable.

<sup>7</sup> United States Energy Information Administration, Photovoltaics and Electricity, <u>https://www.eia.gov/energyexplained/solar/photovoltaics-and-</u> <u>electricity.php#:~:text=The%20U.S.%20Energy%20Information%20Administration%20%28EIA%29%20estimates%20that,20</u> 20%2C%20up%20from%2011%20billion%20kWh%20in%202014

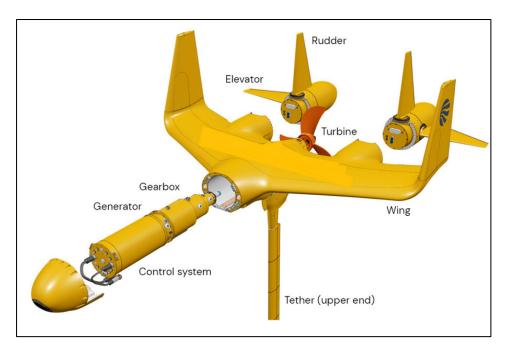


Figure 2-4: Tidal and Current Energy Harvesting System

Senate Bill (SB) 605 (Padilla, Chapter 405, Statutes of 2023) requires the California Energy Commission, in consultation with other state agencies, to evaluate the technological and economic feasibility of deploying wave and tidal energy<sup>8</sup>. Other requirements of SB 605 include identifying suitable sea space for wave and tidal energy projects and identifying monitoring strategies to evaluate impacts to marine and tidal ecosystems.

#### Other Technologies

Staff also screened other technologies including wind turbines and undersea cables. While staff found technological limitations in this particular case, it is possible in the future that technological advances could overcome the hurdles staff identified.

### Initial BARCT Emission Limit and Other Considerations

Staff considered specific repower parameters for the electricity generating facility on Santa Catalina Island throughout the technology assessment process, including electricity demand, space limitations, and fuel storage. Furthermore, challenges for the deployment of ZE and/or NZE technologies were taken into consideration when establishing the BARCT NOx mass emission limit.

### Electricity Demand

The electricity generating facility on Santa Catalina Island historically produces approximately 29,000 MW-hr per year of power. The average hourly load is approximately 3.3 Megawatts (MW). In September 2022, the electricity generating facility located on Santa Catalina Island reached a new peak load of 6.3 MW during a heat wave. The historical annual power generation and new peak load was used to determine feasible repower scenarios to establish BARCT.

<sup>&</sup>lt;sup>8</sup> https://legiscan.com/CA/text/SB605/id/2844364

#### Space Limitations

A significant challenge for installing ZE and/or NZE technologies at the electricity generating facility located on Santa Catalina Island is limited space (**Figure 2-5**). The estimated available onsite space for ZE and/or NZE technologies is less than 5,000 square feet. The electricity generating facility located on Santa Catalina Island also provides water and gas service, which limits the equipment that could be removed and replaced with ZE and/or NZE equipment on the existing facility footprint. The BARCT analysis assumed that three of the six existing diesel engines that will not be replaced with Tier 4 Final diesel engines and all existing microturbines could be removed to install ZE and/or NZE technologies for power generation (see areas marked in red in (**Figure 2-5**).

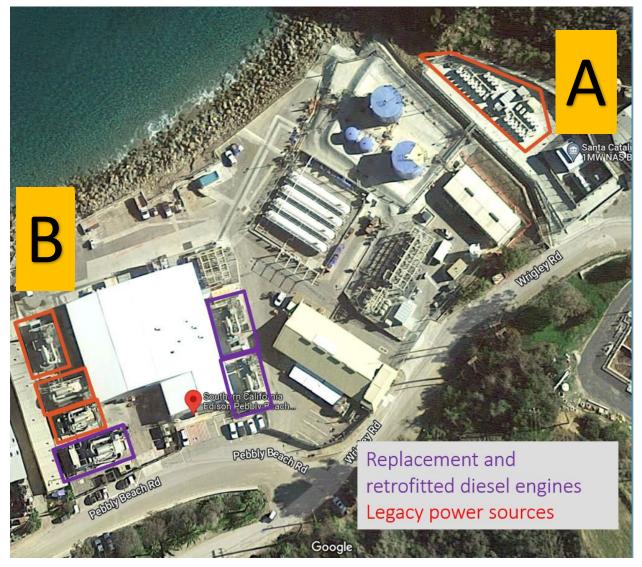


Figure 2-5: Land Availability at the Electricity Generating Facility Located on Santa Catalina Island A – Microturbine platform

B – Diesel internal combustion engines

Staff analyzed the number of ZE and NZE units that could fit in the existing facility footprint (**Table 2-3**)<sup>9</sup>. Initially, staff anticipated that eight linear generators could fit on the microturbine pad. However, the electricity generating facility on Santa Catalina Island stated that the microturbine pad (location A in Figure 2-5) could likely only accommodate five linear generators due to required ancillary equipment. Staff repeatedly requested information from the electric generating facility located on Santa Catalina Island regarding the number of NZE units that could fit in location B in Figure 2-5, when considering ancillary equipment needed. The electricity generating facility located on Santa Catalina Island stated that they had not analyzed how many NZE units could fit at location B because six diesel engines are necessary to meet electricity demand. Therefore, the estimated number of ZE or NZE units in Table 2-3 does not account for potential ancillary equipment needed, except for linear generators located on the microturbine pad. The electric generating facility located on Santa Catalina Island stated that since stated plans to install NZE units at location B.

ZE or NZE Technology	Number of Units in Available Onsite Space	Electric Power Output (MW)
Propane Linear Generators	11	2.75
Hydrogen Linear Generators	11	2.75
Propane Fuel Cells	13	5.7
Hydrogen Fuel Cells	4	4

 Table 2-3: Estimated Number of ZE or NZE Units Possible in Available Onsite Space

Staff also evaluated the possibility of land acquisition outside of the existing facility footprint to install ZE and/or NZE technologies. Additional land procurement would be necessary for solar PV cells to provide a significant contribution of power generation to Santa Catalina Island. However, land availability on Santa Catalina Island for solar PV cells is limited, as most open land on the island is mountainous and solar energy production is optimal on flat pieces of land. A potential site on Santa Catalina for the installation of solar PV cells, or other ZE and/or NZE technologies, is Middle Ranch (**Figure 2-6**). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. Complications in the permitting process and land use plans with external agencies may generate substantial obstacles for the acquisition of additional land. The current land use plan restricts energy facilities from being established on most areas of Santa Catalina Island, including the Middle Ranch site. Modifications to the Santa Catalina Island land use plan would require the revision of existing regulations with external agencies, which could take multiple years.

<sup>&</sup>lt;sup>9</sup> Staff's analysis assumed that ZE and/or NZE technologies were not stacked, however, some vendors stated that their technology has the capability of being stacked.

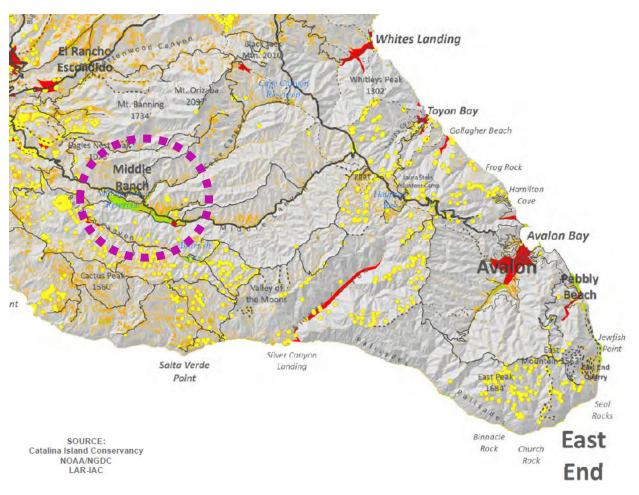


Figure 2-6: Middle Ranch area of Santa Catalina Island<sup>10</sup>

### Fuel Storage

Santa Catalina Island does not have fueling infrastructure on the island; all fuel must be brought in by barges. All repower scenarios for the electricity generating facility located on Santa Catalina Island include three diesel internal combustion engines for redundancy because the site already has 30-days of diesel fuel storage. The repower scenarios assume at least 5% power generation (MW-hr per year) from diesel engines in the event that the barge is not running, and fuel cannot be delivered. Staff analyzed fuel deliveries from 2017 to 2021 to Santa Catalina Island and found that the longest time lapse between fuel deliveries was five days and that the barge did not run for a maximum of 14 days in a calendar year (approximately 4% of a calendar year). Staff assumed at least 5% power generation (MW-hr per year) from diesel engines to be conservative. The BARCT analysis assumes that three of the existing diesel engines would be replaced with U.S. EPA Tier 4 Final diesel engines.

Constructing additional fuel storage beyond the existing 30-day supply for diesel and propane storage tanks is limited on the existing facility footprint. If ZE technologies fueled by hydrogen were to be utilized, the electricity generating facility located on Santa Catalina Island would most likely need to expand its existing footprint to accommodate ancillary fuel storage facilities.

<sup>&</sup>lt;sup>10</sup> Catalina Island Conservancy, GIS Work for Large Solar Project on Island, Accessed: July 21, 2022

Potential land for additional fuel storage was identified at a location adjacent to the electricity generating facility, but outside of the existing facility footprint. After an initial discussion with the landowning company, several unsuccessful attempts for further discussions led staff to determine that acquisition of the land could not be relied upon for the purposes of establishing a BARCT limit.

There are four 30,000-gallon propane storage tanks located at the electricity generating facility located on Santa Catalina Island. However, only three of the propane storage tanks are currently in service due to fire suppression requirements needed to bring the fourth propane storage tank online. Additional water storage for fire suppression is needed to operate the fourth propane storage tank.

Storage tank capacity can fluctuate throughout the year based on seasonal utility demand and gas expansion as temperature rises. Staff requested information from the electricity generating facility located on Santa Catalina Island regarding ambient temperature and daily propane tank percent fill from 2019 to 2023. Based on the data provided, staff found that there was no correlation between temperature and propane tank fill ( $R^2 < 0.009$ ).

The electric generating facility located on Santa Catalina Island stated that a minimum fuel reserve of 25 percent storage tank capacity is required at all times<sup>11</sup>. The average capacity of the propane tanks is 67 percent, but the propane tanks can be filled up to a maximum aggregate capacity of 83 percent. Staff calculated a 2.9 day fuel reserve at average capacity<sup>12</sup>. Since the proposed BARCT limit incorporates 5% diesel engines and 30% ZE technology based on annual power generation (MW-hr per year), existing propane fuel storage was determined to be sufficient. In a scenario where 95% of power is generated using propane, staff calculates a fuel reserve average capacity just below 2 days.

### Initial BARCT Emission Limit

Staff projected the number of fuel tanks necessary for ZE and NZE technologies fueled by hydrogen and propane, respectively. **Table 2-4** provides projections of fuel usage and associated fuel tanks delivered based on repower scenarios for the electricity generating facility located on Santa Catalina Island. Staff assumed a maximum capacity of 9,100-gallons (gal) of propane, 1,250-kilograms (kg), or 7,450 gallons of diesel per fuel tank<sup>13</sup>. The electricity generating facility located on Santa Catalina Island utilizes approximately 2 million gallons of diesel and 190,000 gallons of propane annually for power generation, which equates to approximately 300 fuel tanks. The electric generating facility located on Santa Catalina Island utilizes approximately to allons of propane annually for utility service, which equates to approximately 70 fuel tanks.

<sup>&</sup>lt;sup>11</sup> Between 2019 to 2023, there were 7 days in which the propane tank capacity was below 25 percent

<sup>&</sup>lt;sup>12</sup> Staff calculated days of propane storage based on three propane storage tanks, a 10-day utility fuel reserve, a 25% fuel reserve minimum, and fuel needed for 65% NZE technology for the proposed BARCT limit

<sup>&</sup>lt;sup>13</sup> Fuel tank capacity for barge deliveries is included in the Southern California Edison Pebbly Beach Alternatives Study, Revised Final Action Plan (July 14, 2022)

	Annual Fuel Requirements	Annual Number of Fuel Tanks
Hydrogen Estimated for 95% ZE Scenario	2,146,200 kg	1,717
Hydrogen Estimated for a 65% ZE Scenario	1,395,030 kg	1,116
Propane Estimated for 95% NZE Scenario	2,860,690 gal	309
Propane Estimated for 65% NZE Scenario	1,859,449 gal	205
Propane Estimated for 50% NZE Scenario	1,915,626 gal	276

### Table 2-4: Hydrogen and Propane Fuel Tanks Estimated for Various Repower Scenarios

Staff determined a 95% ZE scenario to be technologically infeasible due to the number of fuel tanks required for hydrogen fueled ZE technologies. Staff is only aware of one barge that delivers fuel to Santa Catalina Island; the barge makes deliveries Monday through Friday. Based on historical fuel usage at the electricity generating facility on Santa Catalina Island, it is possible to deliver at least two tanks of fuel each day that the barge is operating. Staff assumed that the maximum amount of fuel that could be delivered to the electricity generating facility on Santa Catalina Island is two fuel tanks for 260 days out of the year. Therefore, repower scenarios that required over 448 fuel tanks annually were considered to be technologically infeasible<sup>14</sup>. Staff estimates approximately 1,730 fuel tanks would be required annually for a 95% ZE repower scenario using hydrogen fueled technologies. Additionally, a 95% ZE scenario with a combination of both solar PV cells and hydrogen fueled equipment was determined to be technologically infeasible. Due to limited land availability suitable for solar PV cell installation, staff estimates that a maximum of 30% of power generation for Santa Catalina Island could be provided by solar PV cells. The remaining 65% of ZE hydrogen fueled equipment needed for a 95% ZE scenario is estimated to result in approximately 1,130 fuel tanks annually.

Furthermore, a 95% ZE scenario including hydrogen fueled technologies would likely require ancillary fuel storage facilities outside of the existing facility footprint. After several unsuccessful attempts with the landowning company of a potential fuel storage site, staff determined that acquisition of the land could not be relied upon for the purposes of establishing a BARCT limit. Moreover, even if land for additional fuel storage could be acquired, the hydrogen fuel source would eventually be depleted as there are currently not enough barges to replenish the hydrogen fuel reserves.

<sup>&</sup>lt;sup>14</sup> Staff's calculations account for the propane tanks that are delivered for utility service

The repower scenario comprised of 95% propane fueled NZE and 5% diesel internal combustion is estimated to result in 309 fuel tanks being delivered annually. This is approximately three percent more fuel tanks being delivered for power generation than current operations.

The repower scenario comprised of 30% ZE, 65% NZE, and 5% diesel internal combustion engines is estimated to result in approximately 220 fuel tanks being delivered annually. The quantity of fuel tanks that would be delivered as a result of a repower scenario comprised of 30% ZE, 65% NZE, and 5% diesel internal combustion engines results in approximately 80 fewer fuel tanks being delivered for power generation than current operations.

The recommendation for the initial BARCT NOx emission limit is based on the technology assessment. A cost-effectiveness analysis, which includes an incremental cost-effectiveness analysis, is then made with cost information provided by stakeholders to further refine the determination for the final BARCT NOx emission limit. Staff proposed an initial BARCT emission limit of 1.6 tons per year NOx for electric generating units located on Santa Catalina Island. The initial BARCT limit is based on a combination of technologies comprising of 30% ZE, 65% NZE, and 5% diesel internal combustion engines for power generation (MW-hr per year) on Santa Catalina Island.

Staff later revised the initial BARCT limit to 1.8 tpy NOx after updating the emission factors used to calculate the final BARCT limit. The emission factors were updated to reflect the U.S. EPA standard for Tier 4 Final engines used in generator sets rated greater than 1200 hp (1.48 lbs/MWhr) and emission standard for Santa Catalina Island Zero-Emission Electric Generating Units defined in PAR 1135 (<0.01 lb/MWhr). The updated emission factors used are conservative, as Tier 4 Final engines can achieve more than 20 percent lower emissions depending on load. Furthermore, Santa Catalina Island Zero-Emission Electric Generating Units are not counted towards emission calculations, as specified in paragraph (e)(4) of PAR 1135.

### Cost-Effectiveness and Incremental Cost-Effectiveness Analyses

A complete discussion of cost-effectiveness is provided in Chapter 4: Impact Assessment of this report. The findings are summarized here as part of the BARCT assessment process.

Staff conducted a cost-effectiveness analysis of several repower scenarios utilizing ZE and/or NZE technologies to repower the electricity generating facility located on Santa Catalina Island (**Table 2-5**). Staff evaluated the following technologically feasible repower scenarios based on annual power generation (MW-hr per year): all Tier 4 Final diesel engines; 50% NZE, 50% diesel internal combustion engines; 30% ZE, 50% NZE, 20% diesel internal combustion engines; 95% NZE, 5% diesel internal combustion engines; and 30% NZE, 65% NZE, 5% diesel internal combustion engines.

	All Tier 4 Final Diesel Engines	50% NZE, 50% Diesel Engines	30% ZE, <sup>+</sup> 50% NZE, 20% Diesel Engines	95% NZE, 5% Diesel Engines	30% ZE, <sup>+</sup> 65% NZE, 5% Diesel Engines
Net Annual Costs (includes annualized capital and O&M costs)	\$2,296,000	\$663,000	\$2,076,000	\$3,060,000	\$1,924,000
NOx Emission Reductions (Tons/Year)	49.57	59.92	65.3	69.24	69.5
Cost- Effectiveness (\$/Ton of NOx Reduced)	\$46,000	\$11,000	\$32,000	\$44,000	\$28,000

<sup>+</sup>Repower scenario requires the acquisition of land outside of the existing facility footprint

The initial BARCT limit of 1.8 tons per year NOx for the electricity generating facility located on Santa Catalina Island was determined to be cost-effective at less than the 2022 AQMP cost-effectiveness threshold of \$325,000 per ton of NOx reduced.

Staff proceeded to conduct incremental cost-effectiveness analyses between each progressively more stringent repower scenario repower scenarios analyzed (**Table 2-6**) and against an all Tier 4 Final diesel engine scenario (**Table 2-7**). Incremental cost-effectiveness is the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.

Table 2-6: Incremental Cost-Effectiveness of Progressively More Stringent Repower
Scenarios

	All Tier 4 Final	50% NZE, 50%	30% ZE, 50%	95% NZE, 5%
	Diesel Engines	Diesel Engines	NZE, 20% Diesel	Diesel Engines
	versus 50% NZE,	versus 30% ZE,	Engines versus	versus 30% ZE,
	50% Diesel	50% NZE, 20%	95% NZE, 5%	65% NZE, 5%
	Engines	Diesel Engines	Diesel Engines	Diesel Engines
Incremental Cost- Effectiveness	\$(158,000)	\$263,000	\$250,000	\$(4,372,000)

The initial BARCT limit of 1.8 tons per year NOx for the electricity generating facility located on Santa Catalina Island was determined to be incrementally cost-effective at less than \$325,000 per ton of NOx reduced.

### **Emission Limit Recommendation**

As noted earlier, BARCT is defined as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." As such and to be consistent with state law, BARCT emission limits take into consideration environmental impacts, energy impacts, and economic impacts. As this facility is very unique being on an island and the only source of power including electricity, water movement, and waste systems, reliable sufficient power is crucial in avoiding blackouts and other public health issues related to polluted water and hazard health from biological waste exposure. When taking into consideration the various factors affecting a reliable energy supply, the final BARCT determination is for 6 tons per year NOx emissions cap. In addition to energy demand, other considerations such as power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies were taken into account. The initial BARCT analysis at 1.8 tons per year was based on delivery of 1.5 million gallons of propane per year being delivered to the island and enough storage capacity for 30-days in case of unforeseen circumstances preventing the required daily deliveries by barge while avoiding any loss of power needs on the island. Due to the uncertainty that the delivery can be met all the time and potential lack of storage capacity, a lesser amount of propane delivery was evaluated. Taking into account reliability of delivery and 30-day storage, the reasonably achievable amount of 900,000 gallons of propane per year was considered. This would be an increase from the current delivery of propane but would enable the facility to power nearzero equipment that could generate 50 percent (coupled with 30 percent zero emission equipment) of the demand needed to sufficiently and reliably power all of the island's needs for electricity, water transport, and waste systems, even during peak demand. With the remaining power needed based on the usage of Tier 4 diesel engines, this equates to 6 tons per year of NOx emissions that can be feasibly achieved. In addition, the amount of propane ensures lower emissions while providing sufficient reliable power for critical infrastructure that supports compliance with the rule emission caps and seeks to avoid rule violations.

## **CHAPTER 3: SUMMARY OF PROPOSALS**

INTRODUCTION DEFINITIONS (Subdivision (c)) EMISSION LIMITS (Subdivision (d)) MONITORING, RECORDKEEPING, AND REPORTING (Subdivision (e))

## INTRODUCTION

Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (PAR 1135) establishes nitrogen (NOx) mass emission limits for electric generating units located on Santa Catalina Island, requirements to install Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units, and requirements to remove existing prime power diesel internal combustion engines from service. Additionally, PAR 1135 establishes provisions for monitoring, reporting, and recordkeeping for Santa Catalina Island near-zero-emission (NZE) electric generating units and electric generating units not required to install continuous emissions monitoring systems (CEMS) located on Santa Catalina Island. PAR 1135 also includes updates to remove outdated rule provisions, correct rule references, and other editorial changes.

## **DEFINITIONS (Subdivision (c))**

PAR 1135 adds and modifies definitions to provide clarification New or modified definitions added to PAR 1135 include:

• ANNUAL NOx MASS EMISSIONS means actual emissions of NOx produced from all electric generating units at an electricity generating facility between January 1st through December 31<sup>st</sup>.

This proposed definition provides clarity that NOx mass emission limits are calculated on a fixed basis per calendar year, rather than on a rolling basis.

• ELECTRIC GENERATING UNIT means a boiler that generates electric power, a gas turbine that generates electric power with the exception of cogeneration turbines, or equipment that generates electric power and is located on Santa Catalina Island. An electric generating unit does not include emergency internal combustion engines and portable engines registered under the California Air Resources Board Statewide Portable Equipment Registration Program (PERP).

The definition was modified to broaden the definition of electric generating units located on Santa Catalina Island. The proposed definition includes all prime power electric generating equipment located on Santa Catalina Island.

• SANTA CATALINA ISLAND NEAR-ZERO EMISSION (NZE) ELECTRIC GENERATING UNIT means any electric generating unit located on Santa Catalina Island that produces NOx emissions greater than 0.01 pounds per Megawatt-Hour (lb/MW- hr) but less than or equal to 0.07 lb/MW-hr as demonstrated by a South Coast AQMD permit condition or other method determined to be equivalent by the Executive Officer.

This proposed definition provides clarity on the rate of emissions considered to be nearzero emission on Santa Catalina Island. Through the permitting process, staff will determine if equipment meets the emission requirements from a manufacturer guarantee, source test, or other approved method.

• SANTA CATALINA ISLAND ZERO-EMISSION (ZE) ELECTRIC GENERATING UNIT means any electric generating unit located on Santa Catalina Island that produces NOx emissions less than or equal to 0.01 lb/MW-hr as demonstrated by a South Coast AQMD permit condition or other method determined to be equivalent by the Executive Officer. This proposed definition provides clarity on the rate of emissions considered to be zeroemission on Santa Catalina Island. The emissions requirement of less than or equal to 0.01 lb/MW-hr NOx for Santa Catalina Island ZE electric generating units is intended to address any potential emissions. However, Santa Catalina Island ZE electric generating units should have emissions of 0 lb/MW-hr NOx, as any equipment that may cause the issuance of air contaminants or may control air contaminants is required to have a permit, except for equipment specified in Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II.

## **EMISSION LIMITS (Subdivision (d))**

Current South Coast Air Quality Management District (South Coast AQMD) Rule 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135) subparagraph (d)(2)(A) was deleted to remove the first interim annual oxides of nitrogen (NOx) mass emission limit of 50 tons of NOx by January 1, 2024, as the compliance deadline has passed. It is expected that the electricity generating facility located on Santa Catalina Island can meet the first interim limit of 45 tons per year of NOx by January 1, 2027 by replacing two older diesel engines with Tier 4 Final diesel engines.

Subparagraph (d)(2)(A) prohibits the electricity generating facility located on Santa Catalina Island from installing more than three new diesel internal combustion engines. Furthermore, new diesel internal combustion engines installed cannot exceed a maximum cumulative rating of 5.5 Megawatts (MW) as indicated on the rated power nameplate. The maximum cumulative rating is the sum of the prime power nameplate rating of each new diesel internal combustion engine. The new Tier 4 Final diesel engines proposed to be installed are rated at 1.825 MW each. Staff rounded the maximum cumulative rating for the proposed three Tier 4 Final diesel engines to 5.5 MW for simplicity.

Subparagraph (d)(2)(B) extends the deadline prohibiting the installation of any new diesel internal combustion engine from January 1, 2024 to January 1, 2028. Installation of any new diesel internal combustion must be completed by January 1, 2028. Staff updated this provision due to the failure of the cleanest existing diesel engine's new catalyst block to meet particulate matter emission standards as specified by South Coast AQMD Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines<sup>1</sup>. It is expected that the electricity generating facility located on Santa Catalina Island can meet the second interim limit of 30 tons per year of NOx by January 1, 2028 by replacing three older diesel engines with Tier 4 Final diesel engines. Due to the existing capacities of fuel storage and limitations to expand fuel storage outside of existing facility footprint, the extension of the prohibition deadline will provide reliability and redundancy in the event barge trips for propane fuel deliveries cannot occur.

Subparagraph (d)(2)(C) will prohibit the installation of any equipment that does not meet the definition of a "Santa Catalina Island Near-Zero-Emission (NZE) Electric Generating Unit" or a "Santa Catalina Island Zero-Emission (ZE) Electric Generating Unit" after January 1, 2028. This provision was added to require the installation of cleaner power generation technologies that were demonstrated to be technologically feasible and cost-effective during the BARCT assessment.

<sup>&</sup>lt;sup>1</sup> South Coast AQMD, Rule 1470, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf?sfvrsn=8</u>

Subparagraph (d)(2)(D) was also added to ensure that a minimum amount of Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units are installed. Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units will need to provide approximately 75 percent of the power at the electricity generating facility located on Santa Catalina Island to meet the final proposed NOx limit of 6 tons per year (tpy). Throughout the rule development process, the electricity generating facility located on Santa Catalina Island expressed that three Tier 4 Final diesel engines are necessary to provide redundancy during maintenance and unplanned outages. Similarly, backup Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units are necessary to provide sufficient power during maintenance and unplanned outages to meet the final proposed NOx limit as well as minimize the use of diesel engines. Subparagraph (d)(2)(D) requires by January 1, 2030, installation of Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units with a minimum cumulative rating of 1.8 MW as indicated on the rated prime power nameplate. The minimum cumulative rating is the sum of the nameplate rating of each Santa Catalina Island NZE electric generating unit and Santa Catalina Island ZE electric generating unit installed, excluding the highest rated Santa Catalina Island NZE electric generating unit and/or Santa Catalina Island ZE electric generating unit, solar photovoltaic cells, and battery storage. Compliance with subparagraph (d)(2)(D) can be achieved in many ways. For example, installation of three propane engines rated 1.5 MW each would comply with subparagraph (d)(2)(D) because the cumulative rating when subtracting the highest rated Santa Catalina Island NZE electric generating unit is 3.0 MW.<sup>2</sup> However, installation of two propane engines rated 1.5 MW each would not comply with subparagraph (d)(2)(D) because the cumulative rating when subtracting the highest rated Santa Catalina Island NZE electric generating unit is 1.5 MW.

Subparagraph (d)(2)(E) will establish progressively more stringent NOx mass emission limits for the electricity generating facility located on Santa Catalina Island. The final proposed NOx emission limit is 6 tpy. The NOx mass emission limits include emissions from startups, shutdowns, and missing data substitutions.

Subparagraph (d)(2)(F) requires all prime power diesel internal combustion engines for which installation was completed earlier than *[Date of Adoption]* to be removed from service by January 1, 2030. If extensions are granted pursuant to subparagraphs (d)(3)(C) and (d)(5)(C), the compliance date will become six months after any time extension granted. Therefore, all six existing prime power diesel internal combustion engines will be required to be removed from service by January 1, 2030 or six months after time extensions. Removing from service means physically removing the equipment from the facility or altering the equipment in such a way that it cannot be used without new construction activities. The January 1, 2030, compliance deadline in subparagraph (d)(2)(F) aligns with the implementation date of the 13 tpy NOx limit.

Subparagraph (d)(3)(A) requires that by January 1, 2028, the owner or operator conduct a feasibility analysis to determine if the proposed emission limits in clause (d)(2)(E)(iii) can be met by the compliance date. The analysis should identify the electric generating units under consideration, the progress in procuring and installing the electric generating units, a description

<sup>&</sup>lt;sup>2</sup> Staff assumed that propane engines can meet the proposed Santa Catalina Island NZE Electric Generating Unit standard of 0.07 lb/MW-hr NOx for the subparagraph (d)(2)(D) compliance examples

of how those units would achieve the emission limits, and, if applicable, the length of time of up to three years for an extension to the implementation date.

Subparagraph (d)(3)(B) establishes a requirement that a request for a time extension shall be made available for public review no less than 30 days prior to approval.

Subparagraph (d)(3)(C) provides the criteria for which the Executive Officer will evaluate any extension request for approval.

Similarly, paragraphs (d)(3)(D) through (d)(3)(F) requires that by January 1, 2033, the owner or operator conduct a feasibility analysis to determine if the proposed emission limits in clause (d)(2)(E)(iv) can be met by the compliance date. The same requirements for public review and approval criteria apply.

Subparagraph (d)(5)(A) updates the time extension provision for the electricity generating facility on Santa Catalina Island. PAR 1135 allows the electricity generating facility located on Santa Catalina Island to request up to two-time extensions; one time extension for the 13 tpy each NOx limit and one time extension for the 6 tpy NOx limit. Each time extension can be approved for up to three years.

Subparagraph (d)(5)(B) establishes a requirement that a request for a time extension shall be made available for public review no less than 30 days prior to approval.

Clause (d)(5)(C)(ii) was updated to specify that the extenuating circumstances that demonstrate the need for a time extension are limited to construction interruptions and/or supply chain disruptions. Examples of such extenuating circumstances include supply chain or permitting issues beyond the control of Southern California Edison.

## MONITORING, RECORDKEEPING, AND REPORTING (Subdivision (e))

Paragraphs (e)(1) to (e)(3) clarify that Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 Megawatts (MW) and Santa Catalina Island ZE electric generating units do not require installation of continuous emission monitoring systems (CEMS).

Paragraph (e)(4) establishes a method to calculate NOx emissions from Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 MW located on Santa Catalina Island, as those units will not be required to install CEMS. The NOx emissions calculated from Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 MW are required to be added to the total annual NOx emissions from electricity generating units that have CEMS to demonstrate compliance with emission limits specified in paragraph (d)(2).

Paragraph (e)(5) requires records of all data used to calculate the annual NOx emissions from Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 MW for compliance verification purposes. The data is required to be maintained onsite for a minimum of five years and be made available to the Executive Officer upon request.

Paragraph (e)(6) requires the installation of a non-resettable device to continuously record the megawatt-hours hours for each Santa Catalina Island NZE electric generating unit rated less than or equal to 0.5 MW.

### **CHAPTER 4: IMPACT ASSESSMENTS**

INTRODUCTION POTENTIALLY IMPACTED FACILITIES EMISSION INVENTORY AND EMISSION REDUCTIONS COST-EFFECTIVENESS INCREMENTAL COST-EFFECTIVENESS RULE ADOPTION RELATIVE TO COST-EFFECTIVENESS SOCIOECONOMIC IMPACT ASSESSMENT CALIFORNIA ENVIRONMENTAL QUALITY ACT DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727 COMPARATIVE ANALYSIS

## INTRODUCTION

Impact assessments were conducted during the Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen From Electricity Generating Facilities (PAR 1135) development to assess environmental and socioeconomic implications. Health and Safety Code requirements for cost-effectiveness analysis and incremental cost-effectiveness analysis were evaluated during rule development of PAR 1135. Draft findings and comparative analyses were prepared pursuant to Health and Safety Code Sections 40727 and 40727.2, respectively. An analysis of the potential adverse environmental impacts associated with PAR 1135 has been conducted and a California Environmental Quality Act (CEQA) document has been prepared based on this analysis.

## POTENTIALLY IMPACTED FACILITIES

There is one electricity generating facility located on Santa Catalina Island impacted by PAR 1135. The electricity generating facility on Santa Catalina Island currently operates six diesel internal combustion engines and 23 microturbines to generate power. Table 1-1 in Chapter 1 of the staff report contains more detailed information on the equipment affected by PAR 1135.

## **EMISSION INVENTORY AND EMISSION REDUCTIONS**

PAR 1135 will result in emission reductions from the electricity generating facility located on Santa Catalina Island by removing three diesel engines and 23 microturbines and replacing them with Tier 4 Final diesel engines, Santa Catalina Island NZE electric generating units, and Santa Catalina Island ZE electric generating units.

Staff established baseline emissions for the electricity generating facility located on Santa Catalina Island by determining the average of emissions from prime power diesel internal combustion engines listed in the Annual Emission Reports (AERs)<sup>1</sup> for the reporting years of 2017, 2019, and 2021. The baseline emissions from the electricity generating facility located on Santa Catalina Island were determined to be 71.3 tons of oxides of nitrogen (NOx) per year. Emissions data from the 2018 AER reporting year was not included, as emissions data for each diesel internal combustion engine was initially not available. The AER emission data from 2020 was also not included, as emissions were not representative of typical operations due to the COVID-19 pandemic. The electricity generating facility located on Santa Catalina Island later provided the 2018 AER report. However, staff decided to maintain the initial method of calculating baseline emissions, as they are considered representative of typical operations and similar to the emission baseline used in the 2018 amendment to Rule 1135<sup>2</sup>.

The proposed final NOx limit of 6 tpy was established to address concerns raised by the operator regarding feasibility and grid stability. The proposed final NOx limit can be achieved using a combination of Tier 4 Final diesel engines, Santa Catalina Island NZE electric generating units, and Santa Catalina Island ZE electric generating units. Staff assumed a combination of 30% ZE, 50% NZE, and 20% diesel internal combustion engines for the purposes of the cost-effectiveness analysis. The proposed limit is estimated to reduce NOx emissions at the electricity generation facility located on Santa Catalina Island by 65.3 tons per year, or 0.18 tons per day. Estimated

<sup>&</sup>lt;sup>1</sup> South Coast AQMD, Annual Emissions Reporting, <u>http://www.aqmd.gov/home/rules-compliance/compliance/annual-emission-reporting</u>

<sup>&</sup>lt;sup>2</sup> 2018 amendment to Rule 1135 used an emission baseline of 69 tpy NOx for the electricity generating facility located on Santa Catalina Island

emission reductions were calculated by taking the difference between the baseline emissions from the electricity generating facility located on Santa Catalina Island and the estimated NOx emissions from the repower scenario. Estimated emission reductions for the repower scenario was determined by assigning an estimated percentage of power generation output to each equipment type. Power generation was then calculated (Megawatt hour per year (MW-hr per year)) based on an estimated percentage of equipment output. Annual power generation for each equipment type was then multiplied by various emission factors: 1.48 lbs/MW-hr for Tier 4 Final diesel engines, 0.07 lb/MW-hr for Santa Catalina Island NZE electric generating units, and 0.01lb/MW-hr for Santa Catalina Island ZE electric generating units. Lastly, the estimated NOx emissions from each equipment type were added to calculate the total estimated NOx emissions for the repower scenario.

## **COST-EFFECTIVENESS**

Health and Safety Code Section 40920.6 requires a cost-effectiveness analysis when establishing BARCT requirements. Staff conducted a cost-effectiveness analysis of the proposed emission limit. The cost-effectiveness of a technology is measured in terms of the cost in dollars per ton of air pollutant reduced. To determine the cost-effectiveness of each assessed repower scenario for Santa Catalina Island, the following calculation was used:

Cost-Effectiveness = (Annualized Capital Cost+Annual 0&M)–Existing Annual 0&M

Estimated Annual Emissions Reductions

The annualized capital cost in the formula above incorporates a Capital Recovery Factor (CRF) of 4% over the life of the equipment. The CRF method calculates the present value of the control costs over the life of the equipment by adding the capital cost to the present value of all annual costs and other periodic costs over the life of the equipment. Equipment life accounts for the monetary payoff of the equipment, not the operational life expectancy. A 20-year equipment life was assumed for repower scenarios with a mix of technologies. Existing annual operation and maintenance (O&M) costs are then subtracted from the cost of the repower scenario. The difference is divided by the estimated annual emission reductions for the repower scenario, resulting in the cost-effectiveness amount in dollars.

The cost-effectiveness amount for each assessed repower scenario was measured against the 2022 Air Quality Management Plan (AQMP)<sup>3</sup> cost-effectiveness threshold of \$325,000 per ton of NOx. Therefore, if the cost per ton of emissions reduced is less than the cost-effectiveness threshold of \$325,000 per ton of NOx, then the control method is considered to be cost-effective.

Costs were provided by technology vendors and the electricity generating facilities, including the electricity generating facility located on Santa Catalina Island. Capital costs include one-time costs associated with the purchase of equipment, installation, demolition, engineering assessments, labor, and commissioning and testing. Annual operating costs included maintenance and parts, emissions and performance testing, employee and service costs, insurance and permitting, fuel costs (including shipping), hazardous materials handling or treatment, and land lease cost. Values are reported in 2022 dollars. Further, no stranded asset costs were incorporated as the newest diesel

<sup>&</sup>lt;sup>3</sup> South Coast AQMD, 2022 Air Quality Management Plan, <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-</u> management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16

internal combustion engine on an electricity generating facility located on Santa Catalina Island is over 29-years old and the existing microturbines were provided by South Coast AQMD.

The cost-effectiveness analysis of each technologically feasible repower scenario evaluated for the electricity generating facility located on Santa Catalina Island is listed below in Table 4-1. Several variables impacted the cost-effectiveness of each repower scenario, however, the cost of fuel was the primary factor impacting cost-effectiveness. Although the replacement of five diesel internal combustion engines were below the cost-effectiveness threshold of \$325,000 per ton of NOx reduced, it produced the least amount of NOx emission reductions in comparison to the other repower scenarios evaluated. Furthermore, repower scenarios with a mix of technologies (ZE, NZE, and diesel internal combustion engines) were determined to be more cost-effective than the Tier 4 Final diesel engine repower scenario. In fact, the repower scenarios with a mix of technologies were determined to be cost-saving over the life of the equipment when compared to current operations.

	All Tier 4 Final Diesel Engines	50% NZE, 50% Diesel Engines	30% ZE, 50% NZE, 20% Diesel Engines	95% NZE, 5% Diesel Engines	30% ZE, 65% NZE, 5% Diesel Engines
Net Annual Costs (includes annualized capital and O&M costs)	\$2,296,000	\$663,000	\$2,076,000	\$3,060,000	\$1,924,000
NOx Emission Reductions (Tons/Year)	49.57	59.92	65.3	69.34	69.5
Cost- Effectiveness (\$/Ton of NOx Reduced)	\$46,000	\$11,000	\$32,000	\$44,000	\$28,000

Table 4-1: Cost-Effectiveness	<b>Analysis of Repow</b>	er Scenarios on Sa	anta Catalina Island
	1 mary 515 Of 1(c)O		

## INCREMENTAL COST-EFFECTIVENESS

Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for BARCT rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments. Incremental cost-effectiveness is the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.

Incremental cost-effectiveness is calculated as follows:

Incremental cost-effectiveness =  $\frac{Calt-Cproposed}{Ealt-Eproposed}$ 

Where:

 $C_{proposed}$  is the present worth value of the proposed control option;  $E_{proposed}$  are the emission reductions of the proposed control option;  $C_{alt}$  is the present worth value of the alternative control option; and  $E_{alt}$  are the emission reductions of the alternative control option

The incremental cost effectiveness measured against each progressively more stringent technologically feasible repower scenario is presented below in Table 4-2.

#### Table 4-2: Incremental Cost-Effectiveness of Progressively More Stringent Repower Scenarios

	All Tier 4 Final	50% NZE, 50%	30% ZE, 50%	95% NZE, 5%
	Diesel Engines	Diesel Engines	NZE, 20% Diesel	Diesel Engines
	versus 50%	versus 30% ZE,	Engines versus	versus 30% ZE,
	NZE, 50%	50% NZE, 20%	95% NZE, 5%	65% NZE, 5%
	Diesel Engines	Diesel Engines	Diesel Engines	Diesel Engines
Incremental Cost- Effectiveness	\$(158,000)	\$263,000	\$250,000	\$(4,372,000)

## **RULE ADOPTION RELATIVE TO COST-EFFECTIVENESS**

On October 14, 1994, the South Coast AQMD Governing Board adopted a resolution that requires staff to address whether rules being proposed for amendment are considered in the order of cost-effectiveness. The 2022 AQMP ranked, in the order of cost-effectiveness, all of the control measures for which costs were quantified. It is generally recommended that the most cost-effective actions be taken first. Proposed Amended Rule 1135 partially implements Control Measure for Large Combustion Sources, L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities (L-CMB-06). The 2022 AQMP ranked Control Measure L-CMB-06 seventeenth in cost-effectiveness for stationary source control measures for ozone.

## SOCIOECONOMIC IMPACT ASSESSMENT

Health and Safety Code Section 40440.8 requires a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. A Draft Socioeconomic Impact Assessment for PAR 1135 was will be prepared and released for public review and comment on September 3, 2024. The Final Socioeconomic Impact Assessment is available in the October 4, 2024, Governing Board Package. as a separate document as least 30 days prior to the South Coast AQMD Governing Board Hearing of Proposed Amended Rule 1135, which is scheduled for October4, 2024 (subject to change).

## CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to CEQA and South Coast AQMD's Certified Regulatory Program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(1); codified in South Coast AQMD Rule 110), the South Coast AQMD, as lead agency for PAR 1135, prepared a Subsequent Environmental Assessment (SEA) for the proposed project. The SEA is a substitute CEQA

document prepared pursuant to CEQA Guidelines Section 15252 and in lieu of a Subsequent Environmental Impact Report. The SEA tiers off of the November 2018 Final Mitigated SEA for the November 2018 amendments to Rule 1135,<sup>4</sup> as allowed by CEQA Guidelines Sections 15152, 15162, and 15385. The Draft SEA was released for a 46-day public review and comment period to provide public agencies and the public an opportunity to obtain, review, and comment on the environmental analysis. <u>The South Coast AQMD received two comment letters Comments made</u> relative to the analysis in the Draft SEA and responses to the comments <del>will behave been</del> included in the Final SEA.

### DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727

#### **Requirements to Make Findings**

Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing, and in the staff report.

#### Necessity

Proposed Amended Rule 1135 is needed to reduce NOx emission limits at the electricity generating facility located on Santa Catalina Island.

#### Authority

The South Coast AQMD Governing Board has authority to adopt amendments to Proposed Amended Rule 1135 pursuant to the Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508.

#### Clarity

Proposed Amended Rule 1135 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

#### Consistency

Proposed Amended Rule 1135 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

#### Non-Duplication

Proposed Amended Rule 1135 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

#### Reference

In amending Rule 1135, the following statutes which the South Coast AQMD hereby implements, interprets or makes specific are referenced: Health and Safety Code Sections 39002, 40000, 40001, 40702, 40440(a), and 40725 through 40728.5.

<sup>&</sup>lt;sup>4</sup> South Coast AQMD, 2018. Final Mitigated Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, SCH No. 2016071006. <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/par-1135---final-mitigated-sea\_with-appendices.pdf</u>

## **COMPARATIVE ANALYSIS**

Health and Safety Code Section 40727.2 requires a comparative analysis of the proposed amended rule with any Federal or District rules and regulations applicable to the same source. A comparative analysis is presented below in Table 4-3.

Rule Element	PAR 1135	Rule 1110.2	<b>Rule 2009</b>	RECLAIM	40 CFR Part 60 Da	40 CFR Part 60 GG	40 CFR Part 60 KKKK	40 CFR Part 72
Applicability	Boilers, internal combustion engines, and turbines located at investor-owned electric utilities, publicly owned electric utilities, facilities with combined generation capacity of $\geq$ 50 MW	Gaseous and liquid fueled engine over 50 rated brake horsepower	Facility generating ≥ 50MW and owned or operated by Southern California Edison, Los Angeles Dept. of Water and Power, City of Burbank, City of Glendale, City of Pasadena, or any their successors	Facilities regulated under the NOx RECLAIM program (South Coast AQMD Reg. XX)	Electric utility steam generating units at a facility generating > 73 MW and constructed or modified after 9/18/78	Gas turbines with heat input of ≥ 10 MMBtu/hr constructed or modified before 2/18/2005	Gas turbines with heat input of ≥ 10 MMBtu/hr constructed or modified after 2/18/2005	Facilities regulated under the national sulfur dioxide and nitrogen dioxide air pollution control and emission reductions program
Requirements	Concentration limits: • Boiler: NOX 5 ppmv @ 3% O2 • Combined Cycle Gas Turbine and Associated Duct Burner: NOX 2 ppmv @ 15% O2 • Simple Cycle Gas Turbine: NOX 2.5 ppmv @ 15% O2 Internal Combustion • Engine: NOX 45 ppmv @ 15% O2; CO 250 ppmv @ 15% O2; VOC 30 ppmv @ 15% O2; PM 0.0076 lbs/MMBtu @ 15% O2 NOX mass emission limits for the electricity generating facility located on Santa Catalina Island : • 45 tpy by January 1, 2028 • 13 tpy by January 1, 2030 • 6 tpy by January 1, 2035	Existing Internal Combustion Engine: NOX 11 ppmv @ 15% O2; CO 250 ppmv @ 15% O2; VOC 30 ppmv @ 15% O2;	Submit Compliance Plan to demonstrate BARCT by 2003/2004	As determined by Rule 2009	NOx limit: 0.15 lb/MMBtu	NOx limit @ 15% O2: 0.0075*(14.4/Y) +F where Y = manufacture's rated heat input and F = NOx emission allowance for fuel-bound nitrogen	NOx limit for electric generating units (@ 15% O2): •≤ 50 MMBtu/hr – 42 ppm when firing natural gas •50 MMBtu/hr and ≤ 850 MMBtu/hr – 15 ppm when firing natural gas •>850 MBtu/hr – 15 ppm when firing natural gas •≤ 50 MMBtu/hr – 96 ppm when firing other fuel •50 MMBtu/hr and ≤ 850 MMBtu/hr – 74 ppm when firing other fuel •>850 MBtu/hr – 42 ppm when firing natural gas	NOx limits for boilers = 0.40 lb/MMBtu

## Table 4-3: PAR 1135 Comparative Analysis

Rule Element	PAR 1135	Rule 1110.2	<b>Rule 2009</b>	RECLAIM	40 CFR Part 60 Da	40 CFR Part 60 GG	40 CFR Part 60 KKKK	40 CFR Part 72
Reporting	Annual reporting of NOx emissions	Breakdowns, monthly portable engine logs,	None	Daily electronic reporting for major sources     Quarterly Certification of Emissions Report and Annual Permit Emissions Program for all units	Daily written reports or quarterly electronic reports	Excess emissions and CEMS downtime within 30 days	Excess emissions and CEMS downtime within 30 days; annual performance testing within 60 days	40 CFR 75 requirements for quarterly reports of information and hourly data from CEMS monitors, and calibration
Monitoring	A continuous in-stack NOx monitor for electric generating units that are not zero emission or near-zero emission and rated ≤0.5 MW	A continuous in- stack NOx monitor for engines ≥ 1,000 bhp and operating more than two million bhp-hr per calendar year	None	A continuous in- stack NOx monitor for major sources	A continuous in- stack NOx monitor	A continuous in- stack NOx monitor	A continuous in- stack NOx monitor	A continuous in- stack NOx monitor
Recordkeeping	Performance testing; emission rates; monitoring data; CEMS audits and checks maintained for five years	Source testing or Relative accuracy tests per 40 CFR 70 at least once every two years	None	<ul> <li>&lt; 15-min. data</li> <li>= min. 48 hours;</li> <li>≥ 15-min. data</li> <li>= 3 years (5 years if Title V)</li> <li>Maintenance &amp; emission records, source test reports, RATA reports, RATA reports, audit reports and fuel meter calibration records for Annual Permit Emissions Program = 3 years (5 years if Title V)</li> </ul>	Performance testing; emission rates; monitoring data; CEMS audits and checks	Performance testing; emission rates; monitoring data; CEMS audits and checks	Performance testing; emission rates; monitoring data; CEMS audits and checks	Performance testing; emission rates; monitoring data; CEMS audits and checks maintained for three years
Fuel Restrictions	Liquid petroleum fuel limited to Force Majeure natural gas curtailment, readiness testing, and source testing	None	None	None	None	None	None	None

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**APPENDIX A: Facility Affected by Proposed Amended** 

**Rule 1135** 

## Table A-1: Facility Affected by Proposed Amended Rule 1135

Facility ID	Facility Name
4477	Southern California Edison Pebbly Beach Generating Station

# **APPENDIX B: RESPONSE TO PUBLIC COMMENTS**

#### <u>Comment No. 1 (received as verbal statements during Public Workshop) – Mark</u> <u>Abramowitz, Community Environmental Services</u>

Is Southern California Edison in violation of the 50 tons per year of NOx emission limit in Rule 1135? Has Southern California Edison made a formal request for an extension? The Rule 1135 amendment in 2022 prohibited diesels after January 1, 2024 and proposing to allow diesel engines is backsliding. The proposed rule will result in a four-year delay for installing diesel engines. There is no provision in the proposed rule to eliminate the newly-installed diesel engines. With zeroemission alternatives available, the South Coast AQMD is not complying with federal LAER by allowing diesel engines to be installed. Staff conducted a BARCT assessment but at the request of Southern California Edison, the rule was delayed to allow for a grid stability study. However, the grid stability study did not cover the range of technologies that the BARCT assessment addressed. The results of the grid stability study were predetermined as Southern California Edison has raised objections to inverter-based technology. The proposed rule fails to meet the Board's direction to return immediately with a rule that reflects the BARCT assessment. Staff had proposed to require a limit of 1.6 tons of NOx emitted by 2026, but has reversed itself and now will allow over 70 tons of NOx emitted by 2026. The proposed limit of 6 tons of NOx emitted is triple the BARCT assessment and is inconsistent with Board direction, the 2022 AQMP, and state law to adopt rules that reflect BARCT.

### **Response to Comment No. 1**

No, Southern California Edison is not in violation of the current Rule 1135 limit of 50 tons of NOx per year as that compliance determination would be made at the end of the calendar year. Also, Southern California Edison has not yet made a formal request for an extension of time to comply as the extension option only applies to the 2026 emission limit. The proposed rule will allow additional time for diesel engines to be installed because supply chain issues and permitting delayed the installation of the engines. The rule requires removal of the legacy engines but does not require removal of the newly installed engines as they provide necessary redundancy if fuel supplies are not available for the island. Staff is proposing a NOx limit of 6 tons per year because of feasibility and grid stability concerns, and additional time is allowed to procure and install the diesel engines. The effect of the proposed amendments on grid stability is a proper concern as it is an energy impact.

#### <u>Comment No. 2 (received as verbal statements during Public Workshop) – Chris Chavez,</u> <u>Coalition of Clean Air</u>

Please explain why Continuous Emission Monitoring System (CEMS) would not be appropriate. Please quantify diesel particulate matter reductions associated with the original proposal and the current proposal. In the future, as technology develops, the rule should be revisited to determine if more emission reductions are available. Catalina should not be the one area that is allowed to not meet the zero-emission statewide mandate. The goal is to deploy zero-emission technology as soon as possible.

#### **Response to Comment No. 2**

Currently the rule requires CEMS for all electricity generating equipment as all of the equipment is capable of 1 MW or greater output. Because the NZE and ZE equipment may have lower power output and low emissions, staff is proposing that NZE and ZE equipment with an output equal to or less than 0.5 MW be allowed to determine emissions through the use of emission factors representing maximum emissions allowed. Diesel engines and NZE equipment on Santa Catalina Island with an output of greater than 0.5 MW will be required to monitor emissions with a CEMS.

The current PM2.5 inventory associated with diesel engine use on Santa Catalina Island is 0.43 tons per day. The original proposal would reduce PM2.5 emissions 98.7 percent through the use of Tier IV diesel engines and a projected additional 50 percent reduction from limiting the operation time of the Tier IV diesel engines for an overall reduction of 99.4 percent. The current proposal would also reduce PM2.5 emissions by 98.7 percent through the use of Tier IV engines. However, the operation time would be limited to approximately 20 percent of the current usage meaning the overall PM2.5 reduction would be 99.7 percent.

The feasibility analysis in the proposed rule only dictates the timeline for installation of NZE and ZE technology. There is no preclusion to conducting further BARCT assessments and requiring more stringent emission limits in the future.

# Comment No. 3 (received as verbal statements during Public Workshop) – John Chen, Cummins

We are supplying the engines and the engines will result in a massive reduction of PM emissions.

#### **Response to Comment No. 3**

Thank you for that information.

# Comment No. 4 (received as verbal statements during Public Workshop) – David Pettit, <u>formerly representing NRDC</u>

What happened to the 2 ton per year BARCT NOx limit originally proposed by staff? How did it change so greatly?

#### **Response to Comment No. 4**

Southern California Edison conducted a grid stability study and found that there were uncertainties that they could meet that limit. The volume of fuel delivered and storage capacity are concerns. The proposed limits are achievable.

#### Comment No. 5 (received as verbal statements during Public Workshop) – Dawn Anaiscourt, Southern California Edison

SCE appreciates fair regulations and does not oppose the proposed limits as they are based on technology evaluated by South Coast AQMD staff with incorporation of grid stability and propane limitations on the island. There is a high level of uncertainty if we can meet the 2030 and 2035 timelines due to supply chain issues, regulatory hurdles, and technology advancements to determine what the best option will be. We appreciate the ability to review the timelines through

the feasibility studies closer to the deadlines. SCE would prefer a five year extension for the feasibility results. Our commitment to the emission reduction goals remains steadfast. SCE would like the time extensions for circumstances beyond their control to apply to all rule deadlines, not just the 2030 and 2035 deadlines. Where there is a time extension granted, any related prohibition should be similarly extended as everything must be done in a coordinated fashion. The requirement to install NZE or ZE equipment should be tied to the date of the last diesel installation. Lastly, the cap of 5.5 MW of diesel engines is unnecessary to meet emission reduction goals and flexibility should be allowed. If the 5.5 MW cap is maintained, it should be specified that it is related to the prime power output of the engines.

#### **Response to Comment No. 5**

The proposed rule will incorporate time extensions for extenuating circumstances to all rule deadlines and where a time extension is granted, related prohibitions will also be extended six months after the applicable extension. Staff will also clarify that the 5.5 MW cap applies to prime power output of the engines.

# Comment No. 6 (received as verbal statements during Public Workshop) – Mark Abramowitz, Community Environmental Services

The proposed rule does not reflect BARCT which is a minimum requirement and strays from past practice and provisions of the Health and Safety Code. With respect to a 95 percent zero emission scenario, this was requested by the public and found to have a cost-effectiveness at \$88,000 per ton of NOx reduced. Weeks later, the 2022 AQMP was adopted with a higher cost-effectiveness threshold and staff then reversed itself claiming that space requirements, back up fuel storage, and lack of barges made it infeasible. However, staff overestimated the space needed for fuel cells by not considering that fuel cells could be stacked. Additionally, more space could become available if storage of diesel fuel was not necessary. Staff also reversed itself on additional land availability for diesel storage based on the lack of responsiveness to a few phone calls. Lastly, based on no new information, staff claims that a lack of barges or more barge trips makes it infeasible which is preposterous. More barges could be made available and with District assistance, zero emission barges could be available. Procurement of a storage site or contracting of a barge should not be considered when determining BARCT. Other zero-emission technologies, such as roof top solar, underwater turbines, and use of electrolyzers have not been fully evaluated. The proposal weakens diesel standards by increasing averaging times, allowing new diesels, and increasing time frame to comply. The proposal should consider increasing costs of diesel and propane. The proposal allows SCE to conduct their own technology assessment which is suboptimal considering their delays and reluctance to reduce emissions. It could easily be decades before the site needs to meet the emission limits. The extension provisions in the rule bypass the public Hearing Board process, does not have the approval criteria that the Hearing Board follows, and places the decision in the hands of staff. The proposed rule conflicts with the requirement that the provisions reflect BARCT, does not backslide, and requires the use of LAER or major source BACT. The assessment does not indicate what type of hydrogen is being used.

### **Response to Comment No. 6**

Staff did conduct a BARCT assessment which is included as Chapter 2 of this document. The proposed emission limit reflects a compromise to address grid stability and feasibility concerns of

Southern California Edison. Staff did evaluate a 95 percent zero emission scenario but found it technologically infeasible because of space requirements. Hydrogen fuel has a very low energy density. To store 30-days of fuel reserve, the storage tank would be much larger than could be accommodated on site. Land outside the site footprint is extremely limited by the topography of the island and the reluctance of the Catalina Island Conservancy to allow further development. A possible site identified for possible fuel storage was covered in a mudslide and the owner was not interested in selling or leasing.

Many zero emission technologies were identified and evaluated in the BARCT assessment. The proposed emission limit incorporates the use of 30 percent zero emission technology. The proposal is technology neutral allowing the facility to determine which technology is most suitable as long as the emission limits are met.

The proposal does allow additional time beyond the current rule provision to install new diesel engines. Procurement and installation has been delayed by supply chain and permitting issues. Not allowing the installation of new diesel engines would mean the continued use of engines that have significantly higher NOx and PM emissions until some other technology was installed which would likely occur even later than the timelines in the proposal.

The Socioeconomic Impact Assessment will consider future diesel and propane costs when evaluating the proposal.

The proposal allows SCE to conduct a feasibility analysis to determine if more time is needed to install NZE and ZE equipment. The proposal does not include a technology assessment conducted by Southern California Edison or South Coast AQMD. If feasibility and extenuating circumstances extensions are utilized, the final emission compliance date could extend out to 2041. Similar extension provisions are currently included in Rule 1135 and approvals are limited by the criteria established in the rule.

The establishment of LAER or major source BACT is outside the scope of this rule and has an independent process.

The type of hydrogen used was not evaluated as it would not impact NOx emissions.

## **Comment Letter A: Anthony Hernandez, Southern California Edison**

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Mr. Michael Krause Assistant Deputy Executive Officer Planning, Rule Development and Implementation South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 Email: <u>MKrause@aqmd.gov</u>

#### SUBJECT: Proposed Amendments to Rule 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities

Dear Mr. Krause:

Southern California Edison (SCE) appreciates South Coast Air Quality Management District's (SCAQMD) reopening of Rule 1135 to address issues relating to SCE's Pebbly Beach Generating Station (PBGS) on Santa Catalina Island (Catalina). SCE remains committed to working with the SCAQMD on a viable pathway toward a cleaner energy future at PBGS, with plans to increase reliance on near-zero-emission (NZE) and zero-emission (ZE) technology for power generation on the island. I write to provide SCE's comments on the Pre-Preliminary Draft version of Proposed Amended Rule 1135 released on June 13, 2024. According to that draft, an amended Rule 1135 would include the following emission limits and deadlines<sup>1</sup>:

Compliance Deadline	Proposed NOx Limit (tons per year (TPY))				
1/1/2027	45				
1/1/2028	30				
1/1/2030	13				
1/1/2035	6				

**Table 1.** Proposed Emission Reduction Targets and Deadlines

The timeline in Table 1 is extremely ambitious and would require overcoming a multitude of challenges to achieve the necessary nitrogen oxide (NOx) emission reductions by the proposed deadlines, especially the latter two limits set to take effect in 2030 and 2035. SCE is committed to working to achieve these limits while addressing the underlying challenges, in partnership with the SCAQMD. Several of these challenges are due to the island's unique geography and its isolated

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<sup>&</sup>lt;sup>1</sup> The targets were also discussed at the SCAQMD Working Group meeting held on June 13, 2024 (*see* slide 10: <u>https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1135/par-1135\_wgm-6-final.pdf?sfvrsn=6</u>).

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grid. The following discussion underscores the critical nature of the challenges ahead for achievement of future emissions limits, particularly for 2030 and 2035. It is therefore imperative that the Amended Rule 1135 include provisions that ensure that SCE and the SCAQMD conduct thorough technology assessments nearer in time to both the 2030 and 2035 compliance deadlines to ascertain the feasibility of meeting the proposed limits. These assessments will determine whether the deadlines can be met and whether they represent Best Available Retrofit Control Technology (BARCT) at those future dates. Furthermore, they may trigger additional rule development, if necessary. Along with the technology assessments, the Amended Rule should provide appropriate provisions for modifying/extending any of the deadlines listed in Table 1 for compliance where needed, based either on the outcome of the technology assessments or other factors outside SCE's control. Incorporating these modifications into the Pre-Preliminary Draft of the Proposed Amended Rule 1135 will ensure a sustainable framework within the Rule to achieve ongoing emissions reductions from PBGS for Catalina Island.

Specifically, SCE recommends the following additions/modifications to the Pre-Preliminary Draft:

- Five-year extensions and rule development initiation provisions like those in Section d(3)(B) should be added to allow sufficient technology maturation and adoption if the results of the technology assessments deem the 13 TPY and/or 6 TPY limits infeasible.
- Separate technology assessments are needed for both the 13 TPY and 6 TPY limits.
- The maximum time extension (for matters outside of SCE's control) should be increased from two years to up to five years.
- The ability to request time extensions is needed for all emission limits and should be available for ALL extenuating circumstances outside of SCE's control (not only for construction and supply chain disruptions).
- The minimum 2 megawatt (MW) cumulative rating is unnecessarily restrictive and should be removed.
- Remove inclusion of emissions derived from "missing data procedures" (MDP) during period of unexpected Continuous Emissions Monitoring System (CEMS) downtime and allow SCE to use alternative emissions calculations.
- Remove the requirement to remove diesel-fueled internal combustion engines (ICE) installed prior to final rule adoption by January 1, 2030.

#### I. Pathways to Achieve Emission Targets

The challenges SCE and the SCAQMD must address when determining the feasibility of meeting the proposed limits by the specified deadlines include, but are not limited to, the following:

- PBGS would need to completely overhaul the current power generation profile within a compacted schedule to meet all emission limit deadlines.
- Grid stability must be constantly maintained to reliably serve Catalina residents and visitors with life-critical utilities.

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- Inherent operational and grid stability limitations of inverter-based NZE/ZE technologies need to be overcome.
- Considering the unique island challenges and constraints referenced above, the
  optimization of Catalina's propane fuel for electric generation will depend on the
  resolution of SCE's current and future gas GRC proposals, and collaboration with key
  island stakeholders to protect public safety.
- Achieving 30% annual ZE energy generation remains highly speculative at present due to limited land availability and its impact on grid stability.
- SCE prefers to first secure cost recovery authorization from the California Public Utilities Commission, which can take significant time, before committing to required expenditures in equipment and construction costs.
- The proposed emission limits do not account for projected load growth, which can vary greatly depending on the future electrification plans on Catalina.

SCE remains steadfast in its commitment to emissions reduction and clean energy. We wholeheartedly share the SCAQMD's urgency in reducing NOx emissions promptly. Assessing the feasibility of the proposed limits and deadlines requires consideration of multiple complex factors and is constrained by SCE's responsibility to ensure reliable and affordable utilities for Catalina residents and visitors. This section describes the potential pathways to achieve the proposed emission limits by the specified deadlines and includes sample generation scenarios at each target level (Table 2).

The feasibility of achieving the proposed emission limits of 13 TPY and 6 TPY is still highly speculative at present, as explained below. Therefore, SCE requests (as described in Section 2 below) that the rule provide compliance flexibility should the limits be deemed infeasible and not representative of BARCT upon completion of the proposed technology assessments, and/or in the event of other circumstances outside of SCE's control.

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Facility Emissions	Deadline	Unit	Fuel Consumption (gal)	Output <sup>2</sup> (MWh)	Generation Distribution (%)	Projected NOx Emissions (TPY)		
45 TPY	1/1/2027	New Diesel T4Fs	1,605,730	22,163	72%	16.4		
		Older Diesel ICEs	674,252	7,571	25%	28.2		
		Microturbines	208,689	1,053	3%	0.3		
		Total	2,488,671	30,787	100%	45		
30 TPY	1/1/2028	New Diesel T4Fs	1,958,207	27,028	88%	20.0	]	
		Older Diesel ICEs	240,972	2,706	9%	10.1		I
		Microturbines	208,689	1,053	3%	0.3		(
		Total	2,407,868	30,787	100%	30	]	
13 TPY	1/1/2030	New Diesel T4Fs	1,207,137	16,313	52%	12.0		
		NZE	1,500,000	14,771	48%	0.5		
		Total	2,707,137	31,084	100%	13		
6 TPY	1/1/2035	New Diesel T4Fs	495,721	6,988	22%	5.2		
		NZE	1,500,000	14,771	48%	0.5		
		ZE	N/A	9,325	30%	0.0		
		Total	1,995,721	31,084	100%	6		

#### Table 2. Potential Generation Profiles to Achieve Emission Limit Targets

 $<sup>^{2}</sup>$  Generation output and corresponding emissions do not account for future load growth, which is expected to significantly increase over time.

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#### A. A compacted schedule is required to meet emission reduction deadlines.

To achieve the proposed emissions limits by the required deadlines, SCE must undertake an extensive overhaul of the PBGS generation portfolio. Over the next decade, the facility will be in a constant state of flux, with various stages of planning and construction to incorporate the new generation assets. This leaves little room for delays in the supply chain or issues arising from the construction process. All existing generation assets, including the propane-fired microturbines and the six legacy diesel internal combustion engines (ICE), must be phased out to meet the proposed emission limits. These challenges are amplified by the need to provide uninterrupted life-critical utilities to Catalina residents and visitors, amidst rapid technological evolution.

To achieve the proposed 45 TPY NOx emission limit by 2027, SCE must replace at least two of its six existing diesel generators. SCE proposed starting with the replacement of Units 8 and 10 because those have the highest NOx emissions per MWh. SCE submitted the application for permits to replace these engines on April 20, 2021 with U.S. EPA Tier 4 Final-certified (T4F) units and is working diligently with SCAQMD staff to obtain the required Permit to Construct (PTC).<sup>3</sup> If the SCAQMD issues the PTC by December 2024, SCE anticipates completing the replacement of Units 8 and 10 by the end of 2026. Once the two new T4F units are online, SCE will use them as the new baseload units. This will reduce NOx emissions to 45 TPY, a substantial improvement compared to SCE's 2021-2023 NOx emissions range of 60 to 70 TPY. The execution plan is outlined in Figure 1 below.

SCE will procure and replace the third T4F unit (to replace Unit 15) after the SCAQMD issues the PTC. Once installed and operational, this third new T4F unit is expected to reduce facility-wide NOx emissions to 30 TPY. This estimate is based on the grid stability study's conclusion that nearly 90% of the load can be shifted to the three new T4F engines, as shown in Table 2 above. If the SCAQMD issues the PTC by December 2024 and no significant supply chain issues are encountered, it may be possible to complete the third engine replacement by the end of 2027 and fully optimizing all three new generators in 2028, as outlined in Figure 2. If the PTC is not issued within these timeframes, or there are other delays outside of SCE's control, SCE may need to request an extension of the compliance deadlines for the 45 TPY and/or the 30 TPY emission limit.

Reducing emissions to 13 TPY and 6 TPY will be much more challenging than the first two stages because it will require a significant increase in use of NZE/ZE technologies, the feasibility of which remains speculative at this time (due to land scarcity and grid stability concerns). Significant changes to PBGS's current generation portfolio would be needed. Immediate challenges to making those changes include project construction/installation timelines, propane fuel constraints, and meeting grid stability requirements.

<sup>&</sup>lt;sup>3</sup> This permit application also covers the replacement of Unit 15, which is described below. SCE has already procured the T4F units to replace Units 8 and 10, but not 15.

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Because Catalina's isolated grid lacks any connections to the mainland, all facility upgrades must be performed in a specific sequence that ensures sufficient uninterrupted generation to satisfy the island's electrical demand constantly. To meet the 13 TPY limit, SCE would need to retire the aging propane-fired microturbines, replace them with new NZE technology, and increase propane use to at least 1.5 million gallons annually for electricity generation.<sup>4</sup> One generation configuration that could potentially meet the proposed limit is shown in Table 2. On average, SCE's current microturbines (load-following inverter-based resources) produce approximately 3% of the island's annual power production. However, at any given time, the island's electrical demand and online generation resources at PBGS determine the maximum contribution from the microturbines and is specifically related to maintaining grid stability. In contrast, use of propane-fired internal combustion engines (ICE), a more mature technology, could potentially help overcome the lack of grid stability provided by IBRs. Because of the grid stability limitations with IBRs, SCE believes that modeling emissions estimates using propane-fired ICE (instead of IBRs) is a more realistic approach to meet the SCAQMD's proposed NZE emissions limit of 0.07 lbs/MWh.

To maintain reliable power continuously, the incorporation of NZE technology must occur in the following sequence to provide sufficient backup generation to the three new T4F diesel generators. The installation of the first NZE unit will provide sufficient generation capacity to allow ceasing operations and the eventual removal of the older, less-efficient backup non-T4F engines (Units 7, 12, and 14), which is a critical step in meeting the 13 TPY limit. Once the older units have been removed, SCE anticipates there may be sufficient space for a second NZE unit, which is necessary not only for adequate resource redundancy but to also allow increasing propane use to achieve further emission reductions. This must be carefully planned to accommodate the tight space constraints at PBGS. Figure 3 below depicts a projected timeline and task list for NZE installation that would be meet the 13 TPY limit by 2030.

If the SCAQMD issues a PTC for two propane-fired NZE generators to SCE by June 2027 and if SCE can (eventually) feasibly increase propane supply to 1.5 million gallons annually for power generation, it may be possible to meet the 13 TPY limit by 2032 if all conditions noted above occur as outlined (*see* Figure 3 below). SCE recognizes that the SCAQMD would prefer to accelerate the NZE installation process to bring the emission target forward to 2030. If electricity generation from 1.5 million gallons of propane annually proves to be feasible, SCE would be amenable to this target date provided the SCAQMD can shorten the permitting process to fewer than 24 months and with the assumption that no other circumstances beyond SCE's control (e.g., supply chain limitations) delay SCE from procuring and installing the NZE equipment. This must be addressed in the technology assessments that SCE recommends including in the rule.

<sup>&</sup>lt;sup>4</sup> By this time, SCE would already have replaced Units 8, 10, and 15 with new T4F units to meet the 30 TPY limit by January 1, 2028.

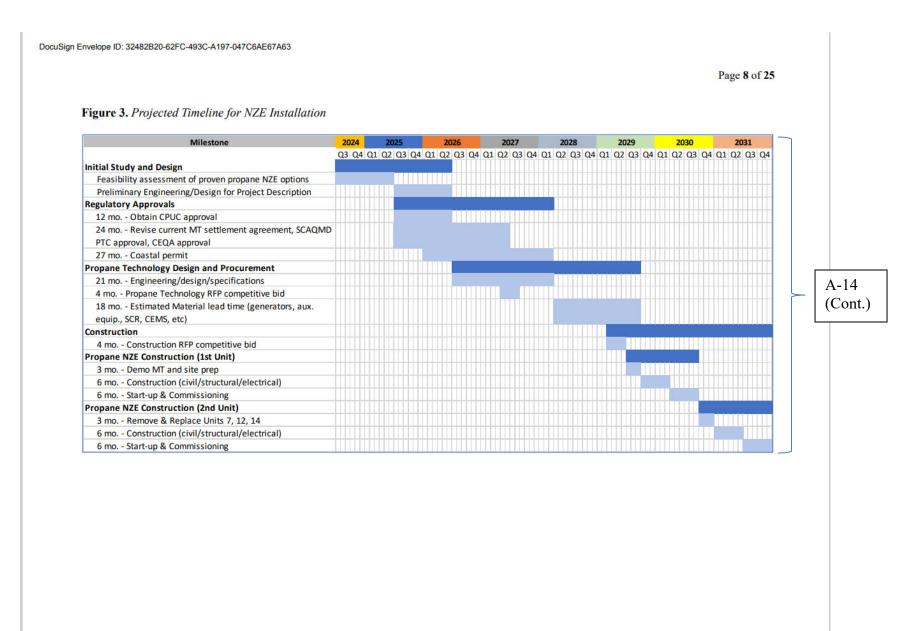


Figure 1. Projected Schedule for Replacement of Units 8 and 10

Milestone		2024			20	)25			20	026		
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Project PTC Issuance												
Coastal Development Permit (CDP) issuance by CA Coastal Commission- 9 months												
RFP for Construction Units 8 & 10 (ideally issued prior to permit)- 4 months												
Award and ramp-up- 2 months												
Install Unit 8 replacement T4F- 8 months												
2 months- Demo & Site Prep												
2 months- Construction (civil/structural/electrical)												
2 months- Start-up & Commissioning												1
Install Unit 10 replacement T4F- 6 months												
2 months- Demo & Site Prep												
2 months- Construction (civil/structural/electrical)												
2 months- Start-up & Commissioning												

#### Figure 2. Projected Schedule for Replacement of Unit 15

Milestone		2024			20	)25			20	26		20	)27
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Project PTC Issuance													
Coastal Development Permit (CDP) issuance by CA Coastal Commission- 9 months													
Procure Unit 15 replacement T4F- 25 months													
6 months- SCE spec & design													
4 months- RFP for competitive bid (issue, go to market, receive bids, PO award)													
18 months- lead time from manufacturer													
RFP for Construction Units 15 (ideally issued prior to permit)- 4 months													
Award and ramp-up													
Install Unit 15 replacement T4F- 6 months													



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# B. Further study is needed to determine whether Catalina's grid can accommodate increased NZE/ZE technology.

SCE has been grappling with the complexity of identifying a feasible generation configuration that would incorporate sufficient NZE/ZE technology to meet both the proposed emission limits and pass grid stability requirements, both currently and in the foreseeable future. As the exclusive provider of electricity, water, and gas for Catalina, SCE bears the responsibility of ensuring safe and reliable utility service to the island. Because Catalina's electrical distribution system is self-contained and isolated with no connections to the mainland's system, all electrical, water, and gas utility operations are entirely dependent on PBGS's electric power production. Given these circumstances, the electrical system's stability is of paramount importance for maintaining reliability. SCE and its consultants continue to study how NZE/ZE generation can successfully be integrated into the grid. Once there is a commercially available ZE/NZE product available, SCE's consultants will use manufacturer-specific technical details to model the product's contribution to grid stability, which must be a central element of the SCAQMD's feasibility assessment. SCE would greatly appreciate the SCAQMD's assistance in encouraging manufacturers to share this information with SCE once it becomes available.

In a small, isolated electrical system like Catalina, one factor critical to grid stability is whether generation resources can provide enough "short-circuit current." Without it, a grid's protective devices cannot function properly when a fault occurs, leading to outages. On the mainland, a myriad of generation sources can contribute short circuit current to the system. However, on Catalina, this safety net is missing. With its isolated generation portfolio and very long distribution circuits, the margin between normal condition load-serving current and short-circuit current is already at the lower end of the allowable range. Replacement of the traditional generation at PBGS with IBRs will further reduce this margin. To protect the island from compromised fault conditions, studies are needed to determine the maximum penetration of IBRs that can be accommodated before significant changes are made. Unlike traditional generation sources that can typically produce instantaneous short-circuit values of around 600% of the full-load rating of the machine, IBRs are commonly limited to values in the range of 120-150% of the inverter rating.<sup>5</sup>

In an electrical system during normal conditions, current flows from the generation source toward the load (the end user). Equipment is sized to ensure it can accommodate the amount of current flow under normal conditions and protective devices are installed along the path that can detect and isolate a portion of the path when a fault occurs. When a fault occurs, the amount of current flowing to the fault usually exceeds the amount of current during normal conditions. Protective devices (specifically those that operate on overcurrent) are set to operate only during fault

<sup>&</sup>lt;sup>5</sup> Hadavi, S., Virtual Synchronous Generator Versus Synchronous Condensers: An Electromagnetic Transient Simulation-based Comparison, February 2022, Section 3.1 (pg. 11), available at <u>https://cse.cigre.org/cse-n024/virtual-synchronous-generator-versus-synchronous-condensers-an-electromagnetic-transient-simulation-based-comparison.html</u>.

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conditions when the current flowing through them exceeds a certain value and for a certain duration. This value must be greater than the amount of current that flows during normal conditions or the protective device may be unable to distinguish between normal and fault conditions. This may cause the protective device to operate when it should not, causing a nuisance outage. Failing to clear a fault can result in a short circuit, with consequences far more serious than nuisance (including injury/death, fire, and equipment damage). The system operator must ensure that the difference between normal condition current flow and short-circuit current flow is large enough so that when a fault occurs, the protective device has the clear signal to operate and clear the fault quickly.

In an electrical system with traditional generation, the amount of steady state short-circuit current is commonly several times higher than the current that flows under normal conditions. These conditions allow protective devices to operate as intended without concern; however, with an increase in the penetration of IBRs (offsetting traditional generation), the steady state short-circuit current during a fault declines. Likewise, as the distance increases between the generation resources and where a fault occurs, the short-circuit current declines.

A protection coordination study evaluates all the protection devices on a section of a system such as a distribution circuit, or in this case, the entire Catalina electrical system. Each device is sized based on its location relative to the current passing through it under both normal conditions and fault conditions. Each device upstream from the fault (i.e., from the fault back toward the source of power) is coordinated with the others to minimize the number of customers affected. If the nearest device upstream from a fault is unable to detect the fault condition, it cannot clear it, so the next upstream device is now responsible to clear it. The fault will persist until an upstream device eventually detects and clears the fault. This increased fault duration presents a significant risk. The proper operation and coordination of a protection system is critical; it would be unacceptable if only a portion of the devices could operate properly. Thus, any proposed generation portfolio for Catalina that would produce inadequate short-circuit current and would result in improper operation of protective should be dismissed.

Maintaining grid stability will be paramount for maintaining the safety and reliability of Catalina's isolated grid as PBGS increases reliance on NZE/ZE technology for power generation. In studying ways to increase propane use and minimize emissions, SCE initially focused on replacing the aging microturbines with propane-fueled IBR technology. However, because IBRs produce significantly less short-circuit current during faults than ICE resources, and because they produce far less power per square foot of space required, SCE is now evaluating propane-fueled ICEs (i.e., reciprocating generators). SCE expects the performance of the propane-fueled ICEs to exceed that of any IBRs in both areas of consideration. However, there are still inherent limitations of propane ICEs which will need to be evaluated.

## C. SCE will continue to evaluate the feasibility of propane reciprocating engines.

Because IBRs inherently produce low values of short-circuit current during faults and have relatively low power output per square foot of space required, SCE is now conducting a

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comprehensive evaluation of propane ICEs (reciprocating engines). The grid stability performance of propane ICEs is expected to exceed that of IBRs. One propane ICE manufacturer has asserted to SCE that its equipment could meet the NZE emissions limit of 0.07 lbs/MWh provided a selective catalytic reduction (SCR) is used, although no written guarantee has been provided. SCE continues to explore the options with the manufacturer (and will continue to seek other manufacturers).

Propane ICEs have inherent operational conditions and limitations that could pose challenges for reliable operation on an isolated grid like Catalina's. Because propane has a significantly higher fuel density than natural gas, it cannot be directly injected into the engine cylinders and must be conditioned before delivery into the combustion chamber. Furthermore, propane spark ignition otto-cycle engines have a slower response than the compression ignition diesel-cycle engines. This means that propane engines do not adjust to load increases reductions as readily as diesel engines. If the generators are unable to adjust quickly enough to follow the load demand, a mismatch between generation and load occurs, leading to grid instability and the potential for a collapse of the grid resulting in a blackout. Therefore, it is important to consider that propane ICEs may not be a reliable generation source to provide baseload power, and diesel generators may be necessary to provide baseload and stability to the grid. In other words, it might prove necessary to always maintain some amount of diesel generation online at a minimum load to provide support for propane ICEs.

Although propane ICEs have significant limitations at this time to overcome for isolated grid integration, SCE believes that they are a viable option if the manufacturer can provide an emissions guarantee to meet the SCAQMD's proposed NZE emission limit. SCE will continue to explore this option.

#### D. Limitations on propane supply can potentially restrict NZE generation.

As shown in Table 2, SCE would have to incorporate NZE technology in a short time and increase annual propane usage for electricity generation to approximately 1.5 million gallons to meet the 13 TPY NOx emission target. Currently, SCE uses approximately 250,000 gallons of propane in a normal year for electricity generation (in years when the battery is unavailable, such as 2023, consumption is around 330,000 gallons). SCE's primary commitment is our obligation to ensure safe and reliable operations at Catalina. In addition, SCE is obligated to serve Catalina with critical utilities and must prioritize distribution of propane to gas customers at all times. Although SCE is resolute in its commitment to increasing propane-based electricity generation at PBGS to meet the necessary emission targets, these commitments to Catalina remain the highest priority. Therefore, the process of increasing propane deliveries up to the proposed volume will need to be vetted with all island stakeholders.

The City of Avalon's Fire Chief has expressed concerns with increasing propane throughput and cited the limited resources and personnel at Catalina in dealing with potential emergencies as an

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underlying factor for these concerns. During subsequent meetings, the Fire Chief has communicated that the City of Avalon Fire Department would be comfortable increasing the propane deliveries to a maximum of three times per week. SCE is currently conducting an independent and comprehensive risk-analysis-based approach to help determine future propane delivery capabilities to PBGS. Preliminary estimates indicate that the maximum average number of propane deliveries is three per week, which is significantly below the estimated 1.5 million gallons for power generation needed to reach the proposed 13 TPY NOx limit. As previously mentioned, SCE must prioritize distribution of propane to gas customers at all times (approximately 650,000 gallons per year). Considering the unique island challenges and constraints referenced above, the optimization of Catalina's propane fuel for electric generation will depend on the resolution of SCE's current and future gas GRC proposals, and collaboration with key island stakeholders to protect public safety. If the necessary deliveries of propane cannot be achieved, the future BARCT assessments must reflect this. SCE is finalizing a detailed report and expects to share it with the SCAQMD in the next few weeks.

## E. No ZE option that can achieve 30% annual generation output (given Catalina's unique constraints) has been identified.

SCE has been diligently exploring options to maximize annual ZE generation from sources such as solar and wind. While SCE has not yet found a ZE option that can provide up to 30% of the island's annual generation output using the available land while also ensuring grid stability, it remains dedicated to this pursuit. SCE will work closely with the SCAQMD to evaluate and determine the appropriate ZE implementation timeframe through a feasibility study as technology matures and other implementation hurdles are overcome.

In a demonstration of its commitment to ZE, SCE launched the Catalina All-Source request for offers (RFO) on December 21, 2022. This RFO sought third-party bids for eligible renewable resources, standalone and paired energy storage, and demand response solutions, among other preferred resources. As an investor-owned utility, SCE adheres to the California Public Utilities Commission (CPUC)-approved least-cost best-fit resource selection framework, which is overseen by the CPUC and an independent evaluator for fairness, transparency, and compliance with stated RFO goals. The bid submission period closed on January 5, 2024, and SCE is currently in the process of assessing the bids. This multi-year process has not yet yielded any offers upon which SCE could rely to achieve 30% annual generation output from ZE resources. Unless and until there are sufficient options for developers to build solar PV projects on Catalina that can account for 30% of annual generation output, SCE will not be able to meet the 6 TPY limit. At this point, concluding that SCE can achieve at least 30% annual generation output with ZE is highly speculative, and thus, the SCAQMD's BARCT scenario is neither achievable nor appropriate on the proposed timeline. Current circumstances underscore the importance of future technology assessments to determine BARCT and corresponding compliance timing as compliance deadlines in the Amended Rule approach.

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#### F. Securing cost recovery from the CPUC.

Investor-owned utilities like SCE pay for projects by petitioning the CPUC for approval for reimbursement, typically prior to any expenditures (a process known as "cost recovery"). In its General Rate Case (GRC) proceeding, a utility projects the next four years' worth of planned capital and maintenance spending. Sometimes, the utility uses a standalone application for certain projects. SCE had originally included the Catalina Repower project costs in its 2021 GRC request. The CPUC's Decision for the 2021 GRC ordered SCE to instead file a separate petition for recovery, which SCE did in October 2021. SCE and the two intervening parties (TURN and Cal Advocates) reached a settlement agreement<sup>6</sup> that was approved in 2022. To seek cost recovery of the new PBGS units, SCE will follow the process outlined in that settlement agreement (which is summarized below):<sup>7</sup>

#### Figure 4

#### Approval Process **Catalina Repower Project** Forum for Cost Recovery Phase IA: Units 8 and 10 replacement SCE proposes cost recovery of Catalina with two new U.S. EPA Tier-4 Final Tier 2 Advice Letter Repower Memorandum Account costs via Certified Tier 3 Advice Letter. Phase IB: Unit 15 replacement, Catalina Repower Memorandum Account Tier 2 Advice Letter retirement, or retrofitting in future cost recovery proceeding. Cost recovery for power purchase Power purchase agreements with third parties agreements with third parties secured secured through the Clean Energy All Source through the Clean Energy All Source RFO RFO will be approved via SCE's Energy will be secured via ERRA. Phase 2: Clean Energy, All-Source Resource Recovery Account (ERRA) Review RFO Application. If SCE needs any non-zero Cost recovery for any non-zero emissions emissions generation (including utility owned generation (including utility owned generation), SCE must seek approval via an generation) will be secured via an application. application.

#### Catalina Repower Project - Approval Phases and Cost Recovery Mechanism

As indicated above, in its GRC, SCE proposed that the Commission approve cost recovery for the new Units 8 and 10 via a Tier 3 Advice Letter (instead of including it in a subsequent GRC proceeding).

<sup>&</sup>lt;sup>6</sup> The April 2022 settlement agreement between TURN, SCE and Cal Advocates created a process for SCE to seek cost recovery of future clean-energy projects on Catalina. It is attached to the November 2022 order granting the parties' request to approve the settlement agreement and terminate the proceeding.

<sup>&</sup>lt;sup>7</sup> See CPUC D.22-11-007, Decision Approving All-Party Settlement Agreement and Making Additional Findings, at § D(6) (Nov. 4, 2022) (available at https://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=498295641).

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#### G. The proposed emission limits do not account for future load growth.

SCAQMD's proposed emission limits are based on historical load for Catalina and do not account for projected load growth. The emission limits being proposed must account for the island's future load growth and failing to do so will adversely impact SCE's ability to meet the emission limits if electric consumption increases considerably. Therefore, SCE requests this be considered in the future technology assessments. It is important that any load growth forecast considers the potential adoption of electric marine vessels and harbor craft and potential electrification of Catalina resident's appliances and vehicles, which could significantly increase load growth in addition to reducing emissions for the air basin.

Load forecasting is inherently challenging, especially in the later years of a long-term horizon. The accuracy of the load forecast used to calculate future emissions is critical to understanding what emission values are achievable while ensuring grid stability. This reinforces the criticality of performing technology assessments with the most current load forecast then-available, prior to the 13 TPY and 6 TPY limits becoming effective to determine if the proposed limits will need to be adjusted and/or their timing extended. SCE strongly supports using the most current forecast at the time of the technology assessments to ensure the highest level of accuracy when determining feasibility of the proposed limits.

In summary, SCE remains committed to achieving the proposed NOx emission targets outlined in the Pre-Preliminary Draft. However, the ability to meet those limits, particularly13 TPY and 6 TPY, is highly speculative at this time due to the multitude of challenges described in this section. For these reasons, SCE is providing comments to the Pre-Preliminary Draft in the next section of this letter to ensure there is sufficient compliance flexibility available. This flexibility is critical because SCE cannot abrogate its duty to provide life-critical utilities to Catalina residents and visitors. Shutting down PBGS operations to remain compliant with limits deemed unattainable is not a viable option.

### II. SCE Comments on Pre-Preliminary Draft Rule Language

As presented above in Section I, there are numerous challenges that must be overcome to achieve compliance with the proposed limits in the Pre-Preliminary Draft. There is much uncertainty at this time on whether the latter two limits of 13 TPY and 6 TPY can be feasibly met by the proposed deadlines, and for this reason it is critical for the SCAQMD to provide sufficient flexibility in the rule language to provide relief if the limits are deemed infeasible upon completion of the proposed technology assessments, or due to other circumstances beyond SCE's control. SCE urges the SCAQMD to apply the revisions presented below.

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A. The language describing the proposed technology assessment should provide necessary relief if the limits are deemed infeasible.

Figure 5. Pre-Preliminary Draft Proposed Amended Rule 1135: Section (d)(3)

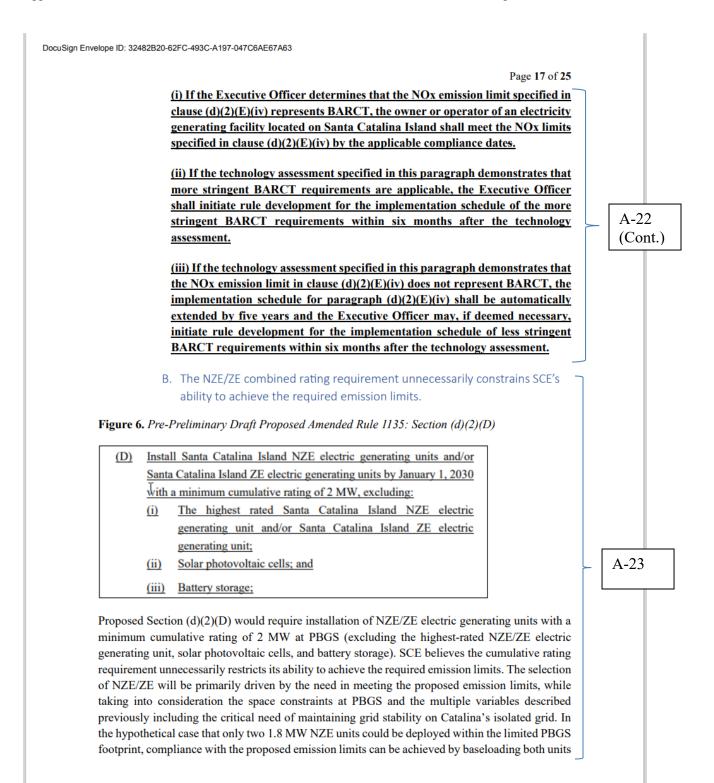
(3)	Tech	nology Assessments for Electric Generating Units Located on Santa
	Cata	lina Island
	By J	January 1, 2028, the Executive Officer shall conduct a technology
	asses	ssment and report to the Governing Board if the NOx emission limits in
	claus	ses (d)(2)(E)(iii) and (d)(2)(E)(iv) represent BARCT.
	(A)	If the Executive Officer determines that the NOx emission limits
		specified in clauses (d)(2)(E)(iii) and (d)(2)(E)(iv) represent BARCT,
		the owner or operator of an electricity generating facility located on
		Santa Catalina Island shall meet the NOx limits specified in clauses
		(d)(2)(E)(iii) and (d)(2)(E)(iv) by the applicable compliance dates.
	(B)	If the technology assessment specified in this paragraph demonstrates
		that more stringent BARCT requirements are applicable, the
		Executive Officer shall initiate rule development for the
		implementation schedule of the more stringent BARCT requirements
		within six months after the technology assessment.

Proposed Section (d)(3) would require a technology assessment by January 1, 2028 to determine whether the 13 TPY and 6 TPY limits are feasible and represent BARCT. If the assessment supports a stricter BARCT requirement, the SCAQMD would be required to initiate rule development to achieve it. However, there is no provision for relaxing the 13 TPY and 6 TPY limits or adjusting their timing if the technology assessment demonstrates they are infeasible and therefore do not represent BARCT in 2030 and 2035, respectively. Such a provision is critical and must be added; given the substantial potential impacts and need for a clear and sustainable framework in the rule, the SCAQMD must provide for more than the default relief (seeking a variance before the Hearing Board). Specifically, SCE recommends the rule include a five-year extension of the proposed 13 TPY and 6 TPY limit deadlines if a technology assessment finds the limits do not represent BARCT, to allow for technology maturation and adoption. SCE believes a five-year period is appropriate to allow for such advancement and reassessment.

Furthermore, the rule should incorporate two separate technology assessments: one each for the 13 TPY and 6 TPY NOx limits. A separate technology assessment is critical for the final BARCT limit of 6 TPY due to the highly speculative nature of meeting the proposed limit at the present time, even if and when the 13 TPY limit is met. As previously described, meeting the final BARCT limit would require a complete overhaul of PBGS's current generation profile within an extremely compressed timeline. In addition, meeting the limit would require increasing the available land as

DocuSign Envelope ID: 32482B20-62FC-493C-A197-047C6AE67A63 Page 16 of 25 well as development of ZE technology that can provide up to 30 percent of total generation output while maintaining grid stability. Finally, performing an additional assessment closer to the final 6 TPY deadline will ensure an accurate load forecast has been accounted for in understanding the limit's feasibility. SCE remains committed to meeting the proposed 2035 deadline, but an additional separate technology assessment for the 6 TPY limit (to be completed by January 1, 2033) should be added to the proposed rule language to ensure feasibility has been evaluated based on updated future conditions and technology. SCE's Proposed Revisions SCE respectfully requests that the SCAQMD revise the draft proposed rule as follows. SCE's proposed modifications to the June 13, 2024 language are shown in **bold underlined** text and deletions are shown in **bold strikethrough** text: (d) (3) Technology Assessments for Electric Generating Units Located on Santa Catalina Island (A) By January 1, 2028, the Executive Officer shall conduct a technology assessment (including assessment of technology availability and island-specific grid stability factors) and report to the Governing Board if the NOx emission limits in clauses (d)(2)(E)(iii) and (d)(2)(E)(iv) represents BARCT. A-22 (i) (A) If the Executive Officer determines that the NOx emission limits specified (Cont.) in clauses (d)(2)(E)(iii) and (d)(2)(E)(iv) represents BARCT, the owner or operator of an electricity generating facility located on Santa Catalina Island shall meet the NOx limits specified in clauses (d)(2)(E)(iii) and (d)(2)(E)(iv) by the applicable compliance dates. (ii) (B) If the technology assessment specified in this paragraph demonstrates that more stringent BARCT requirements are applicable, the Executive Officer shall initiate rule development for the implementation schedule of the more stringent BARCT requirements within six months after the technology assessment. (iii) If the technology assessment(s) specified in this paragraph demonstrates that the NOx emission limit in clause (d)(2)(E)(iii) does not represent BARCT, the implementation schedule for paragraph (d)(2)(E)(iii) shall be automatically extended by five years and the Executive Officer may, if deemed necessary, initiate rule development for the implementation schedule of less stringent BARCT requirements within six months after the technology assessment. (B) By January 1, 2033, the Executive Officer shall conduct a technology assessment (including assessment of technology availability and island-specific grid stability factors) and report to the Governing Board if the NOx emission limits in clause

(d)(2)(E)(iv) represents BARCT.



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to operate simultaneously during high demand periods, if grid stability can be maintained while doing so. However, SCE would not be able to meet the minimum rating requirement (which has no independent benefit once the emission limit is met).

The SCAQMD's Energy Policy<sup>8</sup> states that it is the Governing Board's long-standing policy to be technology neutral and that any form of energy will be allowed in meeting the specified emission limits. By imposing a minimum rating requirement for specific technologies at PBGS, the SCAQMD would be flouting this policy. A rating requirement is irrelevant in this case because the emission limits are what ultimately drive compliance. SCE believes the proposed emission limits are sufficient to drive the reduction targets the SCAQMD is seeking to achieve. Providing flexibility for SCE to strategize and determine the right technology mixture without unnecessary hurdles would afford SCE the optimal foundation for meeting the proposed targets.

#### SCE's Proposed Revisions

SCE respectfully requests that the SCAQMD revise the draft proposed rule as follows. SCE's proposed modifications to the June 13, 2024 language are shown in **bold underlined** text and deletions are shown in **bold strikethrough** text:

Section (d)(2)(D):

(D) Install Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units by January 1, 2030. with a minimum cumulative rating of 2 MW, excluding:

(i) The highest rated Santa Catalina Island NZE electric generating unit and/or Santa Catalina Island ZE electric generating unit;

(ii) Solar photovoltaic cells; and

(iii) Battery storage;

<sup>8</sup> South Coast AQMD, AQMD Air Quality-Related Energy Policy, available at <u>https://www.aqmd.gov/docs/default-source/planning/Greenhouse-Gases/board-approved-energy-policy-090911.pdf?sfvrsn=6</u> (Cont.)

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	C. 1	The propos	ed time extension should be modified to provide cri	tical and
	â	appropriate	compliance flexibility.	
Figure 7	. Pre-Pre	liminary D	raft Proposed Amended Rule 1135: Section (d)(5)(A)	
(4 <u>5</u> ) T	ime Exte	ension		
(4	A) The	owner or o	operator of an electricity generating facility on Santa	
	Cat	alina Island	may submit a request to the Executive Officer for a	
	time	e extension	of up to threetwo years to meet the mass emission	
	lim	itlimits spec	ified in subparagraph (d)(2)(D) clauses (d)(2)(E)(iii)	
	and	(d)(2)(E)(iv	() provided the owner or operator:	
	(i)	Submits	the request to the Executive Officer at least 365 days	
		before	the compliance deadlinedeadlines specified in	
		subparag	raph (d)(2)(D) clauses (d)(2)(E)(iii) and (d)(2)(E)(iv);	
		and		
	(ii)	The requ	est includes:	
		(A <u>I</u> )	Identification of the electric generating units for	
			which a time extension is needed;	
		( <u>₿∐</u> )	The reason(s) a time extension is needed;	-
		( <u>EIII</u> )	Progress of replacing or retrofitting the electric	
			generating units;	
		$(\underline{\mathbf{P}}\underline{\mathbf{IV}})$	A description of the technology or technologies	
			that will be used to achieve the mass emission	
			limit; and	
1		( <u>EV</u> )	The length of time requested.	

Proposed Section (d)(5)(A) includes time extensions of up to two years to meet the mass emission limits of 13 TPY and 6 TPY by 2030 and 2035, respectively. The extension should be expanded to include all limits being proposed under Table 2 of PAR 1135(d)(2)(E), as well as including a potential extension of the diesel ICE ban proposed under PAR 1135(d)(2)(B) and PAR 1135(d)(2)(C) if needed, to address any delays in the construction/procurement timeline or regulatory approvals, including issuance of the required PTC, that are outside of SCE's control. As set forth in Section I of this letter, SCE faces challenges of executing a compacted schedule to install the two T4F engines currently in storage, in addition to procurement of the third T4F engine to replace Unit 15. The procurement of the third engine will begin after the expected issuance of the PTC by the end of this calendar year. Extenuating circumstances outside of SCE's control could cause potential delays in achieving any of the limits in Table 2, and time extensions would provide critical compliance relief as needed.

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The maximum extension time frame should be increased from two years to up to five years. The previous rule language allowed an extension for up to three years. Compliance with the latter two proposed NOx limits remains speculative at this time; it will require grid stability improvements of NZE/ZE technologies, significant increases in propane use for power generation, acquisition of numerous agency/stakeholder approvals, among other things, as described in Section I. All these factors can potentially lead to the need for an extension with a longer time frame than the currently proposed two years. The extension would only be granted at the SCAQMD's discretion, so SCE would need to clearly justify the length of any extension requests.

#### Figure 8. Pre-Preliminary Draft Proposed Amended Rule 1135: Section (d)(5)(B)

(4 <u>5</u> )	(B)	(i) The owner or operator prepared the request for a time extension
		in compliance with subparagraph (d)(45)(A); and
		(ii) The owner or operator provided sufficient details identifying
		the reason(s) a time extension is needed that demonstrates to
		the Executive Officer that there are extenuating circumstances
		due to unforeseen construction interruptions and/or supply
		chain disruptions that necessitate additional time to complete
		implementation. Such a demonstration may include, but is not
		limited to, providing detailed schedules, engineering designs,
		construction plans, land acquisition contracts, permit
		applications, and purchase orders.
	(C)	If the Executive Officer approves the request for a time extension, the
		owner or operator shall pay a mitigation fee within 30 days of the date
		of approval. The mitigation fee shall be \$100,000/year, or any portion
		of a year, after the compliance date specified in subparagraph
		(d)(2)(D) clauses (d)(2)(E)(iii) and (d)(2)(E)(iv).

Proposed Section (d)(5)(B) would narrowly limit the circumstances in which an extension may be granted to unforeseen construction interruptions and/or supply chain disruptions. However, there are a multitude of extenuating circumstances beyond SCE's control that could arise which would require an extension besides construction and supply chain disruptions, such as permitting delays. The currently operative Rule 1135 properly provides a broader, non-exclusive list of examples issues that can form the basis of an extension request:

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Figure 9. Current Rule 1135: Section (d)(4)(B)(i)

(d)	(4)	(B)	<ul> <li>The owner or operator prepared the request for a time extension in compliance with subparagraph (d)(4)(A); and</li> </ul>
			<ul> <li>(ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed that demonstrates to the</li> </ul>
			Executive Officer that there are extenuating circumstances that necessitate additional time to complete implementation. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, land acquisition
			contracts, permit applications, and purchase orders.
		(C)	If the Executive Officer approves the request for a time extension, the owner or operator shall pay a mitigation fee within 30 days of the date of approval. The mitigation fee shall be \$100,000/year, or any portion of a year, after the compliance date specified in subparagraph (d)(2)(D).

Instead of the new proposed draft language, SCE recommends the SCAQMD retain the existing language from the current rule section (d)(4)(B)(ii) which contains a non-exclusive list of circumstances outside SCE's control.<sup>9</sup> As commented previously in Subsection A, the proposed language does not allow the SCAQMD to initiate rule development for scenarios where the 13 TPY and 6 TPY limits are deemed infeasible upon completion of the technology assessment. If the SCAQMD does not initiate rule development to either increase the NOx limit or move the implementation deadline to a later date based on the results of the technology assessment, it is critical for the SCAQMD to allow extensions to provide compliance relief for other extenuating circumstances outside SCE's control.

#### SCE's Proposed Revisions

SCE respectfully requests that the SCAQMD revise the draft proposed rule as follows. SCE's proposed modifications to the June 13, 2024 language are shown in **bold underlined** text and deletions are shown in **bold strikethrough** text:

#### (d) (5) Time Extension

(A) The owner or operator of an electricity generating facility on Santa Catalina Island may submit a request to the Executive Officer for a time extension of up to <u>five</u> two years to meet the mass emission limits specified in <u>Table 2 of clause (d)(2)(E) or the prohibition</u> <u>in clause (d)(2)(B)</u> elauses (d)(2)(E)(iii) and (d)(2)(E)(iv), provided the owner or operator:

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<sup>&</sup>lt;sup>9</sup> The current version of Rule 1135 is available at <u>https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1135.pdf?sfvrsn=4</u>.

DocuSign Envelope ID: 32482820-62FC-493C-A197-047C6AE87A63         Page 22 of 25         9. Submits the request to the Executive Officer at least 365 days before the compliance deadlines specified in Table 2 of clauses (d)(2)(E) and/or clause (d)(2)(E) (dy)(2)(E) (dii)) and (dy)(2)(E)(iv); and         (ii) The request includes:         (ii) The request includes:         (II) The reason(s) a time extension is needed;         (III) Progress of replacing or retrofitting the electric generating units;         (V) A description of the technology or technologies that will be used to achieve the mass emission limit; and         (V) The length of time requested.         (B) The Executive Officer will approve or disapprove the request for a time extension. Approval or disapproval will be based on the following criteria:         (i) The owner or operator prepared the request for a time extension in compliance with subparagraph (d)(5)(A); and         (ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed that demonstrates to the Executive officer hat there are extension is needed that demonstrates to the Executive additional time to complete implementation. due to unforeseer operstruction interruptions and/or supply chain disruptions that additional time to complete implementation. Such as demonstration interruptions and/or supply chain disruptions that additional time to complete implementation. Such as demonstration interruptions and our supply chain disruptions that additional time to complete implementation. Such as demonstration interruptions and/or supply chain disruptions that additional time to complete implementation and acquisition criteria.	<ul> <li>Page 22 of 25</li> <li>(i) Submits the request to the Executive Officer at least 365 days before the compliance deadlines specified in <u>Table 2 of</u> clauses (<u>dl(2)(E)</u> and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl(2)(E)</u>) and/or clause (<u>dl(2)(E)(E)</u>) (<u>dl(2)(E)</u>) (<u>dl</u></li></ul>			
<ul> <li>(i) Submits the request to the Executive Officer at least 365 days before the compliance deadlines specified in <u>Table 2 of</u> clauses (d)(2)(E) and/or clause (d)(2)(E)(d)(2)(E)(iii) and (d)(2)(E)(iv); and</li> <li>(ii) The request includes: <ul> <li>(i) Identification of the electric generating units for which a time extension is needed;</li> <li>(II) The reason(s) a time extension is needed;</li> <li>(III) Progress of replacing or retrofitting the electric generating units;</li> <li>(IV) A description of the technology or technologies that will be used to achieve the mass emission limit; and</li> <li>(V) The length of time requested.</li> </ul> </li> <li>(B) The Executive Officer will approve or disapprove the request for a time extension. Approval or disapproval will be based on the following criteria: <ul> <li>(i) The owner or operator prepared the request for a time extension in compliance with subparagraph (d)(5)(A); and</li> <li>(ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed that demonstrates to the Executive Officer that there are extenuating circumstances <u>that necessitate additional time to complete implementation. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, land acquisition</u></li> </ul> </li> </ul>	<ul> <li>(i) Submits the request to the Executive Officer at least 365 days before the compliance deadlines specified in <u>Table 2 of</u> clauses (d)(2)(E) and/or clause (d)(2)(E)(d)(2)(E)(iii) and (d)(2)(E)(iv); and</li> <li>(ii) The request includes: <ul> <li>(i) Identification of the electric generating units for which a time extension is needed;</li> <li>(II) The reason(s) a time extension is needed;</li> <li>(III) Progress of replacing or retrofitting the electric generating units;</li> <li>(IV) A description of the technology or technologies that will be used to achieve the mass emission limit; and</li> <li>(V) The length of time requested.</li> </ul> </li> <li>(B) The Executive Officer will approve or disapprove the request for a time extension. Approval or disapproval will be based on the following criteria: <ul> <li>(i) The owner or operator prepared the request for a time extension in compliance with subparagraph (d)(5)(A); and</li> <li>(ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed that demonstrates to the Executive Officer that there are extenuating circumstances <u>that necessitate additional time to complete implementation. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, land acquisition</u></li> </ul> </li> </ul>	DocuSign Envelope ID: 32482B20-62FC-493C	-A197-047C6AE67A63	
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	contracts, permit applications, and purchase orders.			

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D. The requirement to include emissions derived from missing data substitution for CEMS monitoring when determining compliance with annual limits should be removed.

Figure 9. Pre-Preliminary Draft Proposed Amended Rule 1135: Section (d)(2)(E)

(€ <u>E</u>	By January 1, 2025, meet aMeet the annual NOx mass emission
)	limits specified in Table 2: Emission Limits for Electric
	Generating Units Located on Santa Catalina Island from for all electric
	generating units of 45 tons of NOx annually, including mass
	emissions from startups and shutdowns, and missing data
	substitutions pursuant to South Coast AQMD Rule 218.3 -
	Continuous Emission Monitoring System: Performance
	Specifications (Rule 218.3) and South Coast AQMD Rule 2012 -
	Requirements for Monitoring, Reporting, and Recordkeeping for
	Oxides of Nitrogen (NOx) Emissions (Rule 2012); and

Proposed Section (d)(2)(E) would require inclusion of emissions derived from "missing data" procedures (MDP) during periods of unexpected CEMS downtime to be included when determining compliance with the annual emissions limit. SCE recommends removal of this requirement. MDP substitutions are unduly punitive and artificially elevate NOx emissions -- sometimes to the extent that the MDP-substituted emissions for a portion of the year exceed the total annual actual emissions for the facility. For example, a CEMS unit could be accurately recording emissions but a late Remote Terminal Unit (RTU) transmission to the SCAQMD could trigger substitute data, which would not be reflective of the facility's "true" emissions. Especially in the case of late RTU transmissions, SCE believes that actual CEMS data should be used in determining compliance.

This will be especially significant as the facility limit is lowered. SCE agrees these emissions should be counted in other circumstances (e.g., annual emissions reports and associated fees), but not toward the rule's annual compliance determination. There is simply not much leeway at these lower limits to incorporate artificially high substitute data. Instead, SCE recommends an "alternative emissions calculation" method that would require SCAQMD approval prior to quantification for determining compliance with the annual emissions limit. SCE believes this would be more representative of actual emissions and would provide sufficient safeguards within the context of the more stringent limits proposed in this rule.

DocuSign Envelope ID: 32482B20-62FC-493C-A197-047C6AE67A63 Page 24 of 25 E. Requiring the removal of legacy ICEs is premature and unnecessary. Figure 10. Pre-Preliminary Draft Proposed Amended Rule 1135: Section (d)(2)(F) On and after January 1, 2026, meet a mass emission limit from all (<del>D</del>F ) electric generating units of 13 tons of NOx annually, including mass emissions from startups and shutdowns. Remove all prime power diesel internal combustion engines for which installation was completed earlier than [Date of Adoption] from service by January 1, 2030. Proposed Section (d)(2)(F) would require the removal, by January 1, 2030, of prime power diesel ICE units that were installed prior to the Rule 1135 amendment adoption. SCE opposes this requirement. The eventual removal of the engines should be ultimately determined by SCE's rigorous grid stability analyses and our ability to introduce NZE/ZE technology into PBGS's generation profile. Our commitment to grid stability and safety is unwavering. We are actively A-26 exploring innovative solutions to transition towards cleaner energy sources while ensuring that SCE can continue to provide life-critical utilities safely. SCE anticipates meeting the proposed 13 TPY and 6 TPY emission limits would require minimal operation of diesel ICE and that their removal may be needed to allow sufficient space for the NZE/ZE units. However, until appropriate models are commercially available and validated through SCE grid stability analyses, requiring removal of the existing ICEs is unnecessarily restrictive. SCE requests that Proposed Section (d)(2)(F) be stricken from the Amended Rule. SCE's Proposed Revisions SCE respectfully requests that the SCAQMD revise the draft proposed rule as follows. SCE's proposed modifications to the June 13, 2024 language are shown in **bold underlined** text and deletions are shown in **bold strikethrough** text: (d)(2)(F) Remove all prime power diesel internal combustion engines for which installation was completed earlier than [Date of Adoption] from service by January 1, 2030. III. Conclusion SCE is committed to finding a solution that balances reducing PBGS's emissions footprint with the need to provide uninterrupted life-critical utilities to Catalina. We see these challenges not just A-27 as obstacles but as opportunities for us to innovate and find solutions together. SCE is aligned with the SCAQMD's emission reduction goals but we will need to work closely together to overcome a multitude of challenges to meet the proposed limits by the proposed deadlines. For that reason,

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the final rule must provide relief from the proposed limits if the technology assessment(s) finds them to be unreasonable and therefore not BARCT.

SCE appreciates the SCAQMD's substantial efforts to amend Rule 1135 and the opportunity to collaborate with the SCAQMD to bring alternative, cleaner power generation solutions to Catalina. Please feel free to contact Yung Chung, Senior Air Quality Advisor, with any questions or concerns at (626) 613-2821 or Yung.Chung@sce.com.



Sincerely,

Anthony Hernandez, SCE Director of Catalina Operations & Strategy Southern California Edison

CC: Michael Morris, SCAQMD Isabelle Shine, SCAQMD Yung Chung, SCE Bethmarie Quiambao, SCE

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  your relationship with Southern California Edison Company.

## **Response to Comment A-1**

Staff appreciates Southern California Edison's commitment to working on a viable pathway toward a cleaner energy future at the Pebbly Beach Generating Station.

## **Response to Comment A-2**

Staff has included consideration of the island's unique geography, isolated grid, grid stability, lack of fueling infrastructure, space constraints, the need to remain fully operable during equipment replacement, and the critical role Pebbly Beach Generating Station has on the well-being of the Santa Catalina Island community. Those considerations are incorporated into the BARCT assessment, the final proposed emission limits, and the provisions allowing additional flexibility.

## **Response to Comment A-3**

Feasibility analyses are included for the 2030 and 2035 emission limits. The feasibility analyses will be conducted two years before the implementation dates (2028 and 2033 respectively) and will identify the electric generating units under consideration, the progress in procuring and installing the electric generating units, a description of how those units would achieve the emission limits, and, if applicable, the length of time of up to three years for an extension to the implementation date. The owner or operator will conduct the feasibility analyses to determine if the proposed emission limits in clause (d)(2)(E)(iv) can be met by the compliance date. The feasibility analyses will not determine if the limits represent BARCT.

## **Response to Comment A-4**

See Response to Comment No. A-3. Extension may be granted for up to three years but does not include rule development initiation provisions.

## **Response to Comment A-5**

See Response to Comment No. A-3. Separate feasibility analyses are included for both the 13 tpy and 6 tpy limits to allow additional time up to three years to meet the proposed limits.

### **Response to Comment A-6**

The maximum time extension for extenuating circumstances has been extended from two years to three years and is applicable to all compliance dates.

### **Response to Comment A-7**

The extenuating circumstances that demonstrate the need for a time extension are limited to unforeseen construction interruptions and/or supply chain disruptions. The variance process to provide relief from South Coast AQMD regulations is available to address extenuating circumstances beyond those reasons provided in the proposed rule.

### **Response to Comment A-8**

A minimum 1.8 MW cumulative prime power output backup provision was added to ensure that a minimum amount of Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units are installed. Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units will need to provide approximately 75 percent of the power at the electricity generating facility located on Santa Catalina Island to meet the final proposed NOx limit of 6 tons per year (tpy). Throughout the rule development

process, it was expressed that three Tier 4 Final diesel engines are necessary to provide redundancy during maintenance and unplanned outages. Similarly, backup Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units are necessary to provide sufficient power during maintenance and unplanned outages to meet the final proposed NOx limit as well as minimize the use of diesel engines.

## **Response to Comment A-9**

The proposed rule includes other approved missing data substitutions as approved by the Executive Officer.

## **Response to Comment A-10**

Removal of the legacy engines installed prior to the adoption date of the rule is necessary due to the space constraints of the facility. Without removal of the engines, there is insufficient space to install cleaner energy equipment. Space limitations are a significant challenge for installing ZE and/or NZE technologies and was taken into consideration during the BARCT assessment. The BARCT analysis assumed that three of the six existing diesel engines that will not be replaced with Tier 4 Final diesel engines and all existing microturbines could be removed to install ZE and/or NZE technologies for power generation. If the legacy engines are not removed, then the space available is the microturbine pad which would reduce the space available to half or less.

## **Response to Comment A-11**

See Response to Comment A-2. Staff acknowledges the challenges when determining the feasibility of meeting the proposed limits. Staff agrees that there is a need to overhaul the current power generation profile that relies on diesel engines installed in the previous century. Grid stability must be maintained when examining modern technologies to provide life-critical utilities. The proposed facility-wide emission caps provide added flexibility for Southern California Edison to determine which technologies best suit the situation. The proposed rule is technology neutral and does not specify technologies to be installed. The proposed emission limits account for the maximum peak load with population growth. Further load growth could be met with NZE and ZE technologies. South Coast AQMD does not consider securing cost recovery authorization from the California Public Utilities Commission to be a sufficient reason for delay.

## **Response to Comment A-12**

Staff appreciates the sample generation scenarios provided to achieve the proposed emission limits by the specified deadlines. The proposed rule provides the opportunity for Southern California Edison to conduct feasibility analyses to determine if the specified deadlines can be achieved. Time extensions are available in the event of extenuating circumstances such as supply chain issues, permit delays, or construction interruptions. However, the feasibility analyses and extensions do not review the BARCT assessment or the proposed emission limits.

## **Response to Comment A-13**

Staff agrees that reducing emissions to 13 TPY and 6 TPY may present challenges and has provided opportunities to request additional time to meet the proposed limits through feasibility analyses and extensions for extenuating circumstances to address construction/installation timelines and grid stability requirements. The very limited current use (approximately 3 percent of power generation) of aged microturbines provide an ideal opportunity to begin installation of NZE

equipment, in parallel with the installation of new diesel engines. The proposed emissions limits are technology and Southern California Edison is free to pursue propane-fired internal combustion engines to meet NZE requirements.

## **Response to Comment A-14**

Staff agrees that the removal of legacy engines must occur sequentially with the installation of NZE technology. Staff disagrees that it would take five years from permit issuance to install NZE technology. As noted earlier, the microturbines could easily be removed with minimal impact on power generation. The space made available could accommodate NZE equipment without removing a legacy diesel engine. With the installation of NZE equipment on the microturbine pad, it would facilitate the removal of the legacy diesel engines as more power output is readily available. See Response to Comment A-3 and A-12 with respect to feasibility analyses and time extensions.

## **Response to Comment A-15**

Southern California Edison conducted a grid stability analysis as part of the BARCT assessment and found NZE and ZE technologies that were stable.<sup>1</sup> Staff disagrees that there are not commercially available ZE/NZE products available. Staff is aware of the challenges of providing power to Santa Catalina Island and has included provisions in the proposed rule to accommodate these challenges (see Response to Comment A-2). Operating power grids with high levels of inverter based resources have already been demonstrated on King Island in Australia, El Hierro in Spain, Kaua'I in Hawaii, and Maui in Hawaii<sup>2</sup>. The most comparable to Santa Catalina Island is El Hierro with a daily peak of 7 MW and a valley of 4 MW. Inverter based resources provide 100 percent of instantaneous power and 80 percent of overall power.<sup>3</sup> The proposed rule is technology neutral and does not require the use of inverter based resources. However, it is clear that high levels of inverter based resources have been demonstrated on island grids and are commercially available.

### **Response to Comment A-16**

The proposed rule is technology neutral and the use of propane fueled ZE/NZE equipment is allowed. The proposed emission limit would enable the facility to maintain some amount (approximately 20 percent) of power generation through the use of diesel engines to provide support for propane fueled ZE/NZE equipment and/or inverter based resources.

## **Response to Comment A-17**

The proposed emission limit includes continued use of propane for gas customers. Staff evaluated the number of barge trips and propane storage capacity. Because diesel deliveries are reduced as propane deliveries increase, the total number of barge trips are similar. The current propane storage capacity is sufficient to supply both the gas customers and the increased fuel for ZE/NZE

<sup>&</sup>lt;sup>1</sup> Southern California Edison, Catalina Island Final Grid Stability Study, 09/29/2023 <u>https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1135/sce-to-scaqmd-with-final-grid-stability-sudy-(9-29-23).pdf?sfvrsn=16</u>

<sup>&</sup>lt;sup>2</sup> National Renewable Energy Laboratory, Introduction to Grid Forming Inverters, June 2024 <u>https://www.nrel.gov/docs/fy24osti/90256.pdf</u>

<sup>&</sup>lt;sup>3</sup> N.Taveira, J. Palomares, E. Quitman, ENERCON GmbH, The Hybrid Power Plant in El Hierro Island: Facts and Challenges from the Wind Farm Perspective <u>https://hybridpowersystems.org/wpcontent/uploads/sites/9/2018/05/1\_3\_TENE18\_046\_paper\_Taveira\_Nuno.pdf</u>

equipment. Staff requested guidance from the City of Avalon Fire Department regarding propane fuel storage and fuel delivery. The City of Avalon Fire Department was clear that additional fuel storage was not possible due to National Fire Protection Association standards. However, the fire department has not stated provided any formal disapproval of increase propane deliveries.<sup>4</sup>

## **Response to Comment A-18**

The proposed rule is technology neutral and does not require the use of ZE equipment. However, staff has identified several ZE technologies, including solar and fuel cells, that could be utilized to provide power. Southern California Edison's grid stability study determined that 30 percent of power could be supplied with solar successfully. There continue to be challenges to procure land and addressing land use concerns for solar power generation. The use of fuel cells would not have those challenges, are stackable, and could easily fit in the footprint of the PBGS site. Southern California Edison is open to continue to pursue technologies in a process consistent with California Public Utilities Commission for procurement but delays in securing cost recovery authorization from the California Public Utilities Commission is not a sufficient reason for delay.

## **Response to Comment A-19**

Southern California Edison is open to continue to pursue technologies in a process consistent with California Public Utilities Commission for procurement but delays in securing cost recovery authorization from the California Public Utilities Commission is not a sufficient reason for delay.

### **Response to Comment A-20**

The proposed emission limits will accommodate projected load growth associated with population growth. If and when load growth associated with electric marine vessels and harbor craft, and electrification of residential appliances and vehicles occurs, a future BARCT assessment can occur within the rule development framework. See Response to Comment A-3.

### **Response to Comment A-21**

Staff appreciates Southern California Edison's comments on proposed rule language and commitment to working on a viable pathway toward a cleaner energy future at the Pebbly Beach Generating Station.

### **Response to Comment A-22**

See Response to Comment A-3, A-4, and A-5.

**Response to Comment A-23** See Response to Comment A-8.

**Response to Comment A-24** See Response to Comment A-6 and A-7.

**Response to Comment A-25** See Response to Comment A-9.

<sup>&</sup>lt;sup>4</sup> Southern California Edison, SUBJECT: Proposed Amendments to Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, January 3, 2024 <u>https://www.aqmd.gov/docs/default-source/rulebook/Proposed-Rules/1135/202401\_sce-pbgs-propane-availability.pdf?sfvrsn=6</u>

## **Response to Comment A-26**

See Response to Comment A-10.

## **Response to Comment A-27**

Staff appreciates Southern California Edison's commitment to working on a viable pathway toward a cleaner energy future at the Pebbly Beach Generating Station. See Response to Comment A-3.

## Comment Letter B: Mark Abramowitz, Community Environmental Services

Thank you for the opportunity to comment on the proposed amendments to PAR 1135, relating to emissions from power production on Catalina Island.

Currently, the Pebbly Beach Generating Station emits more than 10% of all NOx in the District for power production, and is also subject to provisions of an Order for Abatement by the District's Hearing Board, due to violations of the District's toxics rules. It is also upwind of virtually the entire District.

After public concerns about the failure of proposed amendments to proposed amended Rule 1135 to reflect required Best Available Retrofit Control Technology (BARCT) requirements, the last rule amendment was adopted in 2022, with three important provisions, not including those that weakened the requirements for Catalina island.

**First**, after January of this year, no new diesels were allowed. That date has passed, and District rules no longer allow permits for new diesel engines at the site for power production. Yet District staff has now proposed going back in time and allowing new diesel engines when alternatives are available. This backsliding appears inconsistent with the subsequently adopted AQMP, as well as anti-backsliding requirements. And a one year delay in adopting a new rule will result in a four year delay in eliminating the installation of new diesel engines on Catalina Island. This raises a real question of whether the rule should remain as is.

Lastly, it is of great concern that in the face of zero emission technologies that can replace diesel engines, the District seems to be indicating that it will violate its responsibility to ensure that federal LAER and state major source BACT requirements are met in issuing any permits. Compliance with these requirement will result in zero emission technology engines instead of diesel engines.

**Second**, staff was to return to the Board ASAP after performing an updated BARCT assessment focusing on zero emission and near-zero emission technologies.

This BARCT analysis was performed, and completed over a year ago. Indeed, staff's analysis was consistent with the prior public comments that there were feasible zero emission technologies. District staff workshopped and was ready to return to the Board with new amendments reflecting BARCT. These amendments would have resulted in massive emission reductions of diesel particulate matter and NOx at the site.

But at the request of Southern California Edison, the rule was delayed so that Edison could perform a grid stability assessment. The request appears to have been just a delaying or avoidance tactic, as the assessment performed didn't even consider the range of options focusing on zero emission technologies that the BARCT analysis was to address. There was additional delay as Edison performed a further limited assessment.

And because zero emission technologies can rely on what are called "inverter-based" technologies (which are used in microgrids), the results of their analysis was pre-determined, as Edison has raised objections to relying on inverter-based technologies. Indeed, Edison has asked for, and the California Public Utilities Commission has declined, a request by Edison to make findings along these lines.

Edison has continued to oppose rule requirements that reflect BARCT, and have sought to delay the District's progress to meet air quality standards through the use of zero emission technologies. Their demands have reflected this, and raise the question of why the District has cowed to Edison demands for the District to insert themselves into the area of grid stability, which is under purview of the Public Utilities Commission, and not the District. Further, the

**B-1** 

B-2

analysis was prepared by Edison's own consultant, reflecting assumptions in which the PUC is apparently in disagreement. This may be the first District rule ever where an unwilling source has been given the key to B-2 write their own technology assessment. This is particularly suboptimal given the source's track (Cont.) record in delay and refusal to reduce emissions. Under staff's proposal, it could be decades before the site actually meets today's BARCT. As a result, the District's action fails to meet the Board's direction to return ASAP with a rule recommendation that reflects the new BARCT analysis. Third, the Pebbly Beach Generating Station was to reduce emissions to 13 tons per year by 2026, with an extension if that limit was not feasible. Subsequently though, staff determined that indeed that limit was feasible, and further proposed an even more stringent limit of 1.6 tons per year by 2026. After opposition by Edison, District staff has now reversed itself, and proposes allowing over 70 tons by 2026, despite the fact that the District's analysis indicates that BARCT is less that 2 tons per year. B-3 The impact of that change is staggering, and is equivalent to the emission reductions achieved by the sum total of many rules put together. The ultimate emissions limit in the staff proposal, 6 tons per year, remains more than triple that of its BARCT analysis, inconsistent with board direction, the adopted AQMP, district EJ policies, the District energy policy, and state law requirements to adopt rules that reflect BARCT. Even with staff's proposed BARCT limit, there remain further feasible emission reductions that are addressed below. **BARCT Analysis** Despite initial reluctance to seriously consider zero emission technologies for use on Catalina Island, staff is to be complimented on the outstanding work in carrying out the BARCT analysis. We wish that their work had been taken more seriously in proposing new amendments. Instead, the proposed amendments take us backwards. **B-4** We do however, have some concerns about the BARCT analysis, particularly where the conclusions stray from past practice, the provisions of the California Health and Safety Code, and where staff reversed itself in determining the feasibility of zero emission mixes. 95% Zero Emission Scenario The revised BARCT analysis was performed after requests from the public that the District better assess recent improvements in zero emission technology. A 95% zero emission scenario was assessed by District staff in furtherance of that objective. At the November, 2022 working group meeting that reviewed the District's BARCT analysis, B-5 staff found that a 95% zero emission scenario was feasible, but at a cost of \$88,000/ton NOx reduced, it was not cost-effective. Weeks later, the District adopted the 2022 AQMP, which changed the review threshold for costeffectiveness from \$59,000/ton to \$325,000/ton NOx reduced.

Based on no new significant material information, by the next working group meeting the B-5 District claimed that a 95% zero emission scenario was not feasible, even though it may be (Cont.) cost-effective. Fuel cell option In evaluating this scenario, the District looked at fuel cells as a way to meet the possible 95% zero emission, since this was an example raised by the public. In its new characterization of the 95% scenario, the District claimed that space requirements, back-up fuel storage requirements, and lack of barges now made a 95% scenario infeasible. Clearly the Pebbly Beach site is space constrained. However, the staff analysis likely misstated the physical space requirements for fuel cells by as much as 100% or more. Staff acknowledged in the staff report that fuel cell manufacturers have indicated that their fuel cells can be stacked, but the space analysis performed by the District did not assume any stacking. Further, a more aggressive analysis which assumed that zero emission technologies (and not diesel) would be used for emergency backup could have eliminated space taken up by storage of diesel fuel, further reducing any space constraints. B-6 The District also then claimed that there was insufficient space for backup fuel storage. Having previously identified a possible possible site for backup fuel storage, the District reversed itself based on just a few attempted calls to the landowner. Identification of storage space or the interest of a landowner in selling or leasing space at an unspecified price would normally be something that would not fall to the District in doing a BARCT analysis, nor should their disinterest in discussing this with District staff be something that should turn a feasible option into infeasible. In this context, staff has also addressed as barriers land use and permitting issues, and the obstacles they may create. This is true about many District rules, and an unwilling permit holder can be creative in foot-dragging, as Edison has done. But the District needs to look at what steps have been taken by Edison to aggressively seek these approvals. And what amount of their significant advocacy resources that they have brought to bear to seek these approvals compared to the efforts and resources that they have spent to avoid BARCT requirements. The District should not imagine problems where they don't exist, and count on Edison to be diligent. And as described below, these speculative factors are wisely not included by the legislature in the factors for determining BARCT. Lastly, the District, based on no new information, claims that a lack of barges for more barge trips makes the 95% option infeasible. This is a preposterous claim, and one that is also inappropriate for a BARCT analysis. There are many companies that make and/or operate barges. These barges transport trucks that carry the fuel. Currently this is done to transport the diesel fuel to the Island. There are some that believe that they could not only provide barges to transport additional fuel to the **B-7** Island, but with District assistance, would be willing to demonstrate a zero emission barge to do so, and replace the diesel barge that currently transports fuel to the Island. This would have to be done with District assistance. Further, the District's position seems to undermine the basis of the AQMP, which provides for using zero emission technologies, including electrification. Using a lack of barges as a reason to find a zero emission option infeasible is akin to saying that the AQMP is infeasible because

all of the infrastructure to power zero emission sources is not in place. And in this case, it is really up to the source to arrange for a fuel supply chain.

In addition, in making these last two factors a part of the BARCT analysis appears inconsistent with state law. As the District points out, BARCT is defined in Health & Safety Code Section 40406 as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." Neither procurement of a storage site nor contracting a barge, nor speculative land use barriers fall under the "environmental, energy, and economic impacts" that the District may take account of. In fact, these may fall under "economic" but the District has assigned no economic cost to these factors.

Other Zero Emission Options

Staff also performed analysis of other zero emission technologies, though on a smaller scale. And after seeing staff move to options that didn't make full use of zero emission technologies, other options were submitted to the District, including that of taking a distributed energy approach using rooftop solar in order to eliminate the need for diesel engines, underwater zero emission turbines and the use of electrolyzers to produce limited amounts of backup fuel. Data has been submitted to the District, but has not been fully evaluated. Many of the zero emission options can be mixed, and provide a myriad of potential options for zero emission power production on Catalina Island.

The use of all or some of these options are essential to implement the AQMP and provide needed basin emission reductions, yet the District is moving in the opposite direction from the "zero emission" focus of the AQMP. The AQMP specifically calls out (as mentioned in the staff report, replacement of existing diesels. Having just weakened the diesel emission standards in Rule 1135 by increasing emission averaging times, and then proposing to continue to allow new diesels, increased time frames to comply and reducing feasible reduction goals, the District is going backward. We can't go back. The rule should reflect a zero emission cap by some compliance date.

#### **Additional Comments**

Update of emission factors - Staff has proposed to update the emission factors. We believe that this would be inappropriate, and specifically not conservative since the staff report indicates that the engines can achieve 20% lower emissions, Given that the limits are so flexible over time, there is adequate ability to have a BARCT limit that represents what can be achieved. In fact, state BARCT requirements mandate this.

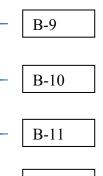
*Cost-effectiveness calculation* - Staff should describe more fully how the cost-effectiveness calculations have changed since November, 2022 when eliminating diesel engines was found to save money due to the high cost of maintaining diesel engines.

And since fuel costs drive any long term cost analysis, the District should provide more information on it's assumptions for the future costs of diesel, hydrogen (renewable), propane, natural gas, etc.

Further, a cost-effectiveness calculation or and especially an incremental cost-effectiveness analysis seems inappropriate and completely subjective when applied to limits that don't

B-7 (Cont.)

B-8



B-12

reflect BARCT, rely on a speculative mix of technologies, and is an emissions cap rather than a comparison of different technologies as anticipated by the legislature. <i>Circumvention of legislature-adopted Hearing Board process/special treatment</i> - Furthermore, staff's proposal bypasses and circumvents the existing public and more transparent Hearing Board process, and instead, is handled by staff. And the criteria for approval of extensions do not match that the independent Hearing Board is required to make for all other sources. Indeed, this source, representing over 10% of power plant emission in the basin, is getting special treatment.		B-12 (Con B-13
staff's proposal bypasses and circumvents the existing public and more transparent Hearing Board process, and instead, is handled by staff. And the criteria for approval of extensions do not match that that the independent Hearing Board is required to make for all other sources. Indeed, this source, representing over 10% of power plant emission in the basin, is getting		B-13
Findings under Health and Safety Code Section 40727 - The District proposes to include a finding that 'Proposed Amended Rule 1135 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.' We believe		B-14
that the Board would not be able to make this finding since the proposed rule conflict requirement that the rule reflect BARCT, violates anti-backsliding requirement, and fails to require the use of LAER and/or major source BACT.	] [	
Diesel limitations - Specific limits should be placed on diesel usage to match staff assumptions. If the intent is for the diesel to be used for emergency backup only, the rule should place this limitation on their use.		B-15
There has already been a lengthy delay, and now staff is proposing to give Edison an additional eight years to me meet a significantly less stringent standard that will be much easier to meet.	} [	B-16
	contradictory to, existing statutes, court decisions, or state or federal regulations.' We believe that the Board would not be able to make this finding since the proposed rule conflict requirement that the rule reflect BARCT, violates anti-backsliding requirement, and fails to require the use of LAER and/or major source BACT. Diesel limitations - Specific limits should be placed on diesel usage to match staff assumptions. If the intent is for the diesel to be used for emergency backup only, the rule should place this limitation on their use.	contradictory to, existing statutes, court decisions, or state or federal regulations.' We believe that the Board would not be able to make this finding since the proposed rule conflict requirement that the rule reflect BARCT, violates anti-backsliding requirement, and fails to require the use of LAER and/or major source BACT. Diesel limitations - Specific limits should be placed on diesel usage to match staff assumptions. If the intent is for the diesel to be used for emergency backup only, the rule should place this limitation on their use.

## **Response to Comment B-1**

The proposed rule amendment allows more time for diesel engines to be installed but also requires further emission reductions beyond the current emission limits. Additional time for diesel installation is due to supply chain issues and permitting delays. Assuming the feasibility analyses conclude that the 13 tpy and 6 tpy NOx limits are achievable by the proposed implementation dates, there will still be approximately 172 tons of NOx emission reductions foregone between 2024 to 2029 when comparing PAR 1135 to current Rule 1135.

The diesel engines have been evaluated pursuant to federal Lowest Achievable Emission Rate (LAER) and state Best Available Control Technology (BACT) guidelines. It is incorrect to state that LAER and BACT requires zero emission technology.

## **Response to Comment B-2**

A BARCT assessment was conducted and when presented it was noted that the grid stability study was pending. While the grid stability study did not fully analyze the possible scenarios staff requested, the grid stability study eventually did show that use of ZE/NZE equipment would result in a stable grid. The emission reductions in the proposed rule will result in a 92 percent reduction in NOx emissions and 99.7 percent reduction in PM emissions. While Southern California Edison has raised concerns with inverter based resources, the grid stability study showed use of inverter based resources would result in a stable grid. Use of inverter based resources to provide the majority of power has been successfully demonstrated on island grids including King Island in Australia, El Hierro in Spain, Kaua'I in Hawaii, and Maui in Hawaii. A feasibility analysis will be allowed to allow for more time to meet the proposed limits but a technology assessment is not included in the proposed rule (see Response to Comment 6.). Under staff's proposal, the final emission limit of 6 tons per year of NOx emissions could be delayed until 2041 if the feasibility analysis and time extension provisions are utilized.

## **Response to Comment B-3**

Staff found that both the 13 ton per year and 6 ton per year emission limits are feasible in the future. Assuming the feasibility analyses conclude that the 13 tpy and 6 tpy NOx limits are achievable by the proposed implementation dates, there will still be approximately 172 tons of NOx emission reductions foregone between 2024 to 2029 when comparing PAR 1135 to current Rule 1135. Staff did conduct a BARCT assessment which is included as Chapter 2 of this document. The proposed emission limit reflects a compromise to address grid stability and feasibility concerns of Southern California Edison.

## **Response to Comment B-4**

A BARCT assessment is included in Chapter 2 of this report which complies with past practice and the California Health and Safety Code.

## **Response to Comment B-5**

The BARCT assessment included a review of a 95 percent zero emission standard. The scenario was found not to be technically feasible due to large amount of land needed for hydrogen fuel storage. The cost-effectiveness of the scenario is irrelevant since the scenario is not technically feasible.

## **Response to Comment B-6**

Propane-fired fuel cells are considered an available option to meet the proposed emission limits. The technology is stackable as noted by the commenter. Current propane storage could accommodate less than three days of power generation without fuel deliveries. Such a short timeframe would jeopardize critical energy needs. A review of the past five years has shown that fuel deliveries are regularly interrupted for several days at a time. Staff agrees that a 30-day fuel storage is needed to ensure continued power generation in case fuel deliveries are interrupted by weather or other calamity. Further fuel storage outside the facility is limited (see Response to Comment 6).

## **Response to Comment B-7**

While the BARCT assessment noted the number of barge trips to meet the various scenarios, it is the limited fuel storage that makes the 95 percent zero emission standard infeasible. BARCT is defined in the Health and Safety Code, section 40406, as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." Storage space of fuel is limiting the maximum degree of reduction achievable. The BARCT limit correctly considers the needs of the island to have stable and continuous power. Both of these factors are relevant to the proposed limit's effect on grid stability, which is an energy impact that is properly considered in determining BARCT.

## **Response to Comment B-8**

Staff did evaluate multiple zero emission technologies. While solar was identified as an option that could provide 30 percent of power on Santa Catalina Island, the proposed rule is technology neutral and does not specify any specific technology use. Other of the myriad of ZE/NZE technologies not identified could be utilized to meet the proposed emission limits which integrate 30 percent zero emission technology in the BARCT assessment consistent with the 2022 AQMP. A 100% zero-emission limit was determined to be unfeasible at the current time. If technological advances in the future allow for further adoption of zero emission technologies, rule development can be initiated to incorporate the advancements.

## **Response to Comment B-9**

Staff updated the emission factors to account for negligible emissions from zero emission technologies. The change in emission factors results in 0.00055 ton per day (1.1 pounds per day) of emission increase over the original BARCT assessment.

## **Response to Comment B-10**

The change of cost-effectiveness is due to the addition of land lease costs for solar. Specifics cannot be provided because of the confidential nature of the costs and that the proposed rule impacts only one facility. Staff is unable to aggregate costs as is normally done when multiple facilities are impacted by a proposed rule.

## **Response to Comment B-11**

Staff used current fuel prices for diesel and propane. Natural gas is not available on the island and would not provide additional benefit over propane. Hydrogen cost was not included because

sufficient storage space is unavailable. The Socioeconomic Impact Assessment will evaluate future diesel and propane costs.

#### **Response to Comment B-12**

Cost-effectiveness was calculated for the BARCT assessment and the final emission limit. Both were found to be cost-effective and incrementally cost-effective.

### **Response to Comment B-13**

The Hearing Board process is utilized when facilities seek relief from rule requirements. Numerous rules, including the current version of Rule 1135, have provisions and exemptions to avoid non-compliance necessitating the Hearing Board process.

#### **Response to Comment B-14**

See Response to Comment B-1 and B-3.

#### **Response to Comment B-15**

Emission limits constrain the use of diesel engines. The proposed limit envisions the diesel engines as backup, not as emergency use only. Emergency use is limited to 200 hours per year. Historical barge records indicate that fuel delivery is unavailable between five and fourteen days per year which would exceed the 200 hour per year emergency limit.

#### **Response to Comment B-16**

See Response to Comment B-1

# Comment Letter C: Anthony Hernandez, Southern California Edison

Docusign Envelope ID: 3A81EE61-3323-4A1F-B5AF-D1509C449E67



Mr. Michael Krause Assistant Deputy Executive Officer Planning, Rule Development and Implementation South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 MKrause@aqmd.gov

#### SUBJECT: Proposed Amendments to Rule 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities

Dear Mr. Krause:

Southern California Edison (SCE) appreciates South Coast Air Quality Management District's (SCAQMD) reopening of Rule 1135 to address issues relating to SCE's Pebbly Beach Generating Station (PBGS) on Santa Catalina Island (Catalina). SCE remains committed to working with the SCAQMD on a viable pathway toward a cleaner energy future at PBGS, with plans to increase reliance on near-zero-emission (NZE) and zero-emission (ZE) power generation technology. This letter provides SCE's comments on the Preliminary Draft version of Proposed Amended Rule (PAR) 1135 released on July 19, 2024. All comments stem from the high degree of uncertainty at present in meeting the proposed emission limit targets, and SCE is requesting these revisions to provide sufficient safeguards and flexibility. This is critical since SCE cannot abrogate its duty to provide life-critical utilities to Catalina residents and visitors to achieve compliance if the requirements under the proposed rule prove to be unattainable.

#### I. SCE Comments on Pre-Preliminary Draft Rule Language

SCE remains committed to meeting SCAQMD's clean air objectives and will apply its best efforts to meet the proposed deadlines and emission limits. As previously outlined in our July 3, 2024 comment letter, there are a multitude of challenges to overcome and much uncertainty at this time on whether the latter two limits of 13 and 6 tons per year (TPY) can be feasibly met by the proposed deadlines. For these reasons, it is critical for the rule to provide sufficient flexibility and safeguards to provide relief if meeting the limits and requirements in the rule are deemed infeasible by their respective deadlines.

C-1

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SCE	urges tr	ne SCAQMD to adopt the following suggested revisions:	
1.	1. Proposed revisions to the time extension language under Section (d)(5):		
	a.	Allow time extensions of up to three years for all limits under Table 2 of Proposed Section $(d)(2)(E)$ .	
	b.	The extension language should include the prohibitions and deadlines under Proposed Sections $(d)(2)(B)$ , $(d)(2)(C)$ , $(d)(2)(D)$ , and $(d)(2)(F)$ .	
	c.	Allow time extensions of up to five years.	
2.	Remo	ove the 5.5 MW maximum cumulative rating cap for new diesel internal combustion les.	
3.		ove the requirement to include emissions derived from missing data substitution for S monitoring when determining compliance with annual limits.	
	Α.	Proposed time extension language revisions	
Figur	e 1. Pr	eliminary Draft Proposed Amended Rule 1135: Section (d)(5)	
(4 <u>5</u> )	Time	Extension	
	(A)	The owner or operator of an electricity generating facility on Santa	
		Catalina Island may submit a request to the Executive Officer for a	
		time extension of up to three years to meet the mass emission	
		time extension of up to three years to meet the mass emission limitlimits specified in subparagraph (d)(2)(D) clauses (d)(2)(E)(iii)	
		time extension of up to three years to meet the mass emission	

challenge of executing a compacted schedule to install the two U.S. EPA-certified Tier 4 Final (T4F) engines currently in storage, in addition to procuring the third T4F engine to replace Unit 15. The procurement of the third engine will begin after the expected issuance of the PTC by the end of 2024, after the rule is amended. Extenuating circumstances outside SCE's control could cause potential delays in achieving any of the limits in Table 2, and time extensions would provide the critical compliance relief needed while holding SCE responsible for continuing to work toward meeting the limit when it becomes feasible. If time extensions are granted, any related prohibitions should be similarly extended, as everything must be done in a sequential and coordinated manner.

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The extension language in the proposed rule should include the prohibitions and deadlines under - Proposed Sections (d)(2)(B), (d)(2)(C), (d)(2)(D), and (d)(2)(F).

In addition, the language under Proposed Section (d)(5) links the time extension language to the feasibility studies under Proposed Section (d)(3). Any extensions granted under this section of the rule should be independent of the feasibility study results and additional to any time extensions granted under Proposed Section (d)(3). SCE requests revisions to the language to remove or clarify references to Proposed Section (d)(3).

Compliance with the latter two proposed NOx limits remains highly speculative at this time; it will require grid stability improvements of NZE/ZE technologies, significant increases in propane use for power generation, viable ZE projects capable of achieving at least 30% annual generation output,<sup>1</sup> acquisition of numerous agency/stakeholder approvals, etc. All these factors can potentially lead to the need for an extension with a longer time than the currently proposed three-year maximum (even considering the additional three years potentially provided by the feasibility assessments). SCE therefore requests the SCAQMD consider making the time extension provided by this provision up to five years.

#### SCE's Proposed Revisions

SCE respectfully requests that the SCAQMD revise the draft proposed rule as shown below and consider extending it from three to five years. SCE's proposed modifications to the July 19, 2024 language are shown in **bold underlined** text and deletions are shown in **bold strikethrough** text:

Proposed Section (d)(5)(A):

- (A) In addition to any time extensions granted pursuant to clause (d)(3), the owner or operator of an electricity generating facility on Santa Catalina Island may submit a request to the Executive Officer for a time extension of up to three years to meet the mass emission limits specified in clauses (d)(2)(E)(i), (d)(2)(E)(ii), (d)(2)(E)(ii), and (d)(2)(E)(iv) and the requirements in clauses (d)(2)(B), (d)(2)(C), (d)(2)(D), and (d)(2)(F) extended pursuant to paragraph (d)(3) provided the owner or operator:
  - (i) Submits the request to the Executive Officer at least 365 days before the compliance deadlines specified in subparagraph (d)(2)(D) clauses (d)(2)(E)(i), (d)(2)(E)(ii), (d)(2)(E)(iii), and (d)(2)(E)(iv) and the requirements in clauses (d)(2)(B), (d)(2)(C), (d)(2)(D), and (d)(2)(F) and extended pursuant to paragraph (d)(3); and

#### C-8 (Cont.)

<sup>&</sup>lt;sup>1</sup> SCE launched the Catalina All-Source request for offers (RFO) on December 21, 2022. This RFO sought thirdparty bids for eligible renewable resources, standalone and paired energy storage, and demand response solutions, among other preferred resources. Because none of the bids submitted met the minimum requirements, SCE did not accept any.

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	В.	Any removal of legacy ICEs should be coordinated with and conti upon other actions, with deadlines extended as necessary.	ngent
Figu	re 2. Pre	eliminary Draft Proposed Amended Rule 1135: Section (d)(2)(F)	
(Đ <u>F</u>	On an	d after January 1, 2026, meet a mass emission limit from all	
)	electri	e generating units of 13 tons of NOx annually, including mass	
		ions from startups and shutdowns. <u>Remove all prime</u> diesel internal combustion engines for which installation was	
	comple	eted earlier than [Date of Adoption] from service by January 1,	
	<u>2030</u>	or six months after any time extensions provided pursuant to	
	subpar	ragraphs $(d)(3)(C)$ or $(d)(5)(C)$ .	

Proposed Section (d)(2)(F) would require the removal, by January 1, 2030, of prime power diesel internal combustion engine (ICE) units that were installed prior to adoption of the amended Rule 1135. SCE appreciates the added potential extension language linked to the feasibility studies. The timing of the eventual removal of the engines should be determined as part of SCE's rigorous grid stability analyses and depend on our ability to introduce NZE/ZE technology into PBGS's generation profile. Our commitment to grid stability and safety is unwavering. We are actively exploring innovative solutions to transition towards cleaner energy sources while continuing to provide life-critical utilities safely. SCE's current analysis shows that meeting the proposed 13 TPY and 6 TPY emission limits would require minimal operation of diesel ICE and that their removal may be needed to allow sufficient space for the NZE/ZE units. However, until appropriate models are commercially available and validated through SCE grid stability analyses, requiring removal of the existing ICEs is premature and may not account for the practical implications on grid stability needs.

Thus, any rule language requiring the removal of legacy diesel engines must be clearly coordinated with and contingent upon the successful installation and operation of NZE and ZE technology that will adequately compensate for the back-up reliability that the legacy engines provide. Without this necessary coordination, the rule risks becoming inconsistent during the implementation phase.

Similarly, any requirement to install only ZE and NZE technology after January 1, 2028 and any ban on installation of diesel engines after the same date should be coordinated together *and* conditioned upon the successful installation and operation of the initial three diesel engines that are required for reliability on the island. Where one provision deadline is extended, the others should be extended as well. SCE highlights the importance of the rule language providing the ability to extend the prohibitions and deadlines under Proposed Section (d)(2).

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C. 5.5 MW maximum cumulative rating for new diesel internal combustion engines

Figure 3. Preliminary Draft Proposed Amended Rule 1135: Section (d)(2)(A)

(2) Electric Generating Units Located on Santa Catalina Island

- The owner or operator of an electricity generating facility located on Santa Catalina Island with diesel internal combustion engines electric generating units shall:
  - (A) By January 1, 2024, meet a mass emission limit from all electric generating units of 50 tons of NOx annually, including mass emissions from startups and shutdowns; Not install more than three new diesel internal combustion engines with a maximum cumulative rating of 5.5 MW;

Figure 4. Preliminary Draft Staff Report: Page 3-2

Subparagraph (d)(2)(A) prohibits the electricity generating facility located on Santa Catalina Island from installing more than three new diesel internal combustion engines. Furthermore, new diesel internal combustion engines installed cannot exceed a maximum cumulative rating of 5.5 MW. The maximum cumulative rating is the sum of the name plate rating of each new diesel internal combustion engine. The new Tier 4 Final diesel engines proposed to be installed are rated at 1.825 Megawatts (MW) each. Staff rounded the maximum cumulative rating for the proposed three Tier 4 final diesel engines to 5.5 MW for simplicity.

SCE understands the goal of Rule 1135 is to meet the proposed emission limits and thereby achieve the necessary NOx reductions to help meet the SCAQMD's cleaner air vision for PBGS. A MW cap on diesel installations is not necessary to meet those NOx reduction goals. The precise way SCE reaches the emissions targets should be driven by grid stability and resource adequacy needs. These restrictions are not needed to meet the rule's emission reduction objectives and are burdensome. SCE recommends that the language be removed from the proposed rule.

If the language is not removed from the proposed rule, it and the staff report should be revised to clearly specify that the 5.5 MW figure is based on the rated prime power nameplate for the installed engines. The 1.825 MW rating that the SCAQMD used to derive the 5.5 MW is based on the rated prime power nameplate, so this specification should be clear in the staff report (which does not differentiate between standby and prime power ratings). SCE respectfully requests that SCAQMD specify in the staff report that this rating is based off the prime power rating (consistent with the previously submitted permit application).

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	D.	The requirement to include emissions derived from missing c substitution for CEMS monitoring when determining complia annual limits should be removed.	
Figu	e 9. Prel	iminary Draft Proposed Amended Rule 1135: Section (d)(2)(E)	
( <u>E</u> )	limit <u>li</u> Genera genera emissi		
	Specif	ications (Rule 218.3) and South Coast AQMD Rule 2012 -	

Proposed Section (d)(2)(E) would require inclusion of emissions derived from "missing data" procedures (MDP) during periods of unexpected downtime of the continuous emission monitoring system (CEMS) to be included when determining compliance with the annual emissions limit. SCE recommends removal of this requirement. MDP substitutions are unduly punitive and artificially elevate NOx emissions -- sometimes to the extent that the MDP-substituted emissions for a portion of the year exceed the total annual actual emissions for the facility. For example, a CEMS unit could be accurately recording emissions but a late Remote Terminal Unit (RTU) transmission to the SCAQMD could trigger substitute data, which would not be reflective of the facility's "true" emissions. Especially in the case of late RTU transmissions, SCE believes that actual CEMS data should be used in determining compliance.

This will be especially significant as the facility limit is lowered. SCE agrees these emissions should be counted in other circumstances (e.g., annual emissions reports and associated fees), but not toward the rule's annual compliance determination. There is simply not much leeway at these lower limits to incorporate artificially high substitute data. Instead, SCE recommends an "alternative emissions calculation" method that would require SCAQMD approval prior to quantification for determining compliance with the annual emissions limit. SCE believes this would better represent actual emissions and would provide sufficient safeguards within the context of the more stringent limits proposed in this rule.

Docusign Envelope ID: 3A81EE61-3323-4A1F-B5AF-D1509C449E67 August 14, 2024 Page 7 of 8 11. Conclusion SCE is committed to finding a solution that balances reducing PBGS's emissions footprint with the need to provide reliable and resilient life-critical utilities to Catalina. Meeting the proposed 13 and 6 TPY NOx emission limits under PAR 1135 will require a complete overhaul of all power generation assets currently being utilized at PBGS within an extremely accelerated period, while maintaining grid stability and our obligations to Catalina residents. SCE remains committed to overcoming the challenges needed to meet these limits, but sufficient safeguards and flexibility are required within the final rule language to provide the greatest opportunity for success. SCE C-12 cannot abrogate its duty to provide life-critical utilities to Catalina residents and visitors to achieve compliance if the proposed rule's requirements are unattainable. SCE appreciates the SCAQMD's substantial efforts to amend Rule 1135 and the opportunity to collaborate with the SCAQMD to bring alternative, cleaner power generation solutions to Catalina. Please feel free to contact Yung Chung, Senior Air Quality Advisor, with any questions or concerns at (626) 613-2821 or Yung.Chung@sce.com. Sincerely, DocuSigned by: anthony Hemandez Anthony Hernandez, SCE Director of Catalina Operations & Strategy Southern California Edison cc: Michael Morris, SCAQMD Isabelle Shine, SCAQMD Yung Chung, SCE Bethmarie Quiambao, SCE Attachments A-SCE's PAR 1135 Comment Letter (July 3, 2024)

See Comment Letter A above for SCE's PAR 1135 Comment Letter (July 3, 2024)

#### **Response to Comment C-1**

See Response to Comment A-1 and A-2.

#### **Response to Comment C-2**

Thank you for providing additional comments to the previous comment letter on July 3, 2024 which is included above as Comment Letter A and contains staff's responses.

### **Response to Comment C-3**

See Response to Comment A-3 and A-4.

### **Response to Comment C-4**

The extension language includes prohibitions and deadlines under paragraphs (d)(2)(B), (d)(2)(C), (d)(2)(D), and (d)(2)(F).

### **Response to Comment C-5**

Staff believes time extensions of up to five years would be excessive. With the proposed time extensions and feasibility analyses, the proposed rule already allows compliance implementation dates to be delayed by up to 18 years. The request would add eight more years allowing for compliance implementation dates to be delayed by up to 26 years.

### **Response to Comment C-6**

The new Tier 4 Final diesel engines proposed to be installed by Southern California Edison are rated at 1.825 Megawatts (MW) prime power output each. Staff rounded the maximum cumulative rating for the proposed three Tier 4 Final diesel engines to 5.5 MW for simplicity. Southern California Edison has indicated that the three proposed engines can provide 90 percent or more of the power needed for Santa Catalina Island. Having the ability to install larger engines would increase NOx and PM emissions beyond what is necessary to provide adequate power.

### **Response to Comment C-7**

See Response to Comment A-9.

### **Response to Comment C-8**

See Response to Comment A-3, A-4, C-4, and C-5. The linkage of the time extension in paragraph (d)(5) to the feasibility analysis in paragraph means that time extension can be requested after any additional time is allowed for feasibility concerns. Therefore, linking the two paragraphs means that if both are utilized, the compliance implementation date can be delayed by up to six years.

### **Response to Comment C-9**

The proposed rule language delays the removal of the legacy engines up to six months after any time extension is provided pursuant to subparagraphs (d)(3)(C) or (d)(5)(C). See also Response to Comment A-10.

### **Response to Comment C-10**

See Response to Comment C-6. The proposed rule language has been clarified to specify that the rating is based on the rated prime power nameplate as requested.

# **Response to Comment C-11**

See Response to Comment C-7.

## **Response to Comment C-12**

See Response to Comment A-1 and A-2.

# Comment Letter D, Jesse Marquez, Coalition for a Safe Environment (et al.)

Coalition For A Safe Environment Community Dreams EMERGE The Wilmington Wire United Wilmington Youth Foundation Organización de Servicios Comunitarios Familiares Citizens For A Better Wilmington San Pedro Peninsula Homeowners United NAACP- San Pedro-Wilmington Branch # 1069 West Long Beach Association Latinos In Action Friends of the Air, Earth and Water California Kids IAQ California Communities Against Toxics St. Philomena Church Social Justice Committee California Safe Schools

August 15, 2024

Stationary Source Committee South Coast AQMD 21865 Copley Dr. Diamond Bar, CA 91765

PAR 1135: Isabelle Shine Planning, Rule Development, and Implementation 909-396-3064 ishine@aqmd.gov

CEQA: Sina Taghvaee, Ph.D. Planning, Rule Development, and Implementation, CEQA Section 909-396-2192 staghvaee@aqmd.gov

Re: Proposed Amendments PAR 1135 Su: Public Comment Submittal Opposing Rule 1135

Dear Stationary Source Committee:

The Coalition For A Safe Environment et al community organizations submit our public comments opposing Rule 1135 due to the numerous unacceptable proposed changes.

It appears that AQMD senior management is interfering with AQMD Staff Rule 1135 progress by allowing Southern California Edison to not comply with all requirements of Rule1135 such as by-passing Best Available Retrofit Control Technology (BARCT) requirements, not taking any enforcement actions and allowing SCE to continually delay compliance by accepting requests for additional studies.

We ask for the following: 1. We want AQMD to identify all applicable California and Federal laws, executive orders, **D-2** acts, policies, regulations, rules and program requirements. 2. We want AQMD to include all applicable California and Federal laws, executive orders, D-3 acts, policies, regulations, rules and program requirements in PAR 1135. 3. We do not want any exemptions, waivers, variances or dismissal of any existing Rule 1135 requirements, penalties or fines for Southern California Edison's (SCE) failure to D-4 comply with any regulatory requirements. 4. We do not accept any compliance deadlines extensions from the existing Rule 1135. D-5 5. We do not accept any weakening of the existing Rule 1135 emission limits by increasing D-6 the limit. D-7 6. We want AQMD to identify and require BARCT to be incorporated in all areas applicable in the PAR1135. 7. We want AQMD to identify and require Zero Emissions Technology to be incorporated in the SCE facility in PAR1135. There are Zero Emission Technologies to replace over D-8 90% of all equipment and power sources. Alternative Green Power is currently available and includes Solar Power, Ocean Wave, Wind Turbine and Green Hydrogen Fuel Cell Power. 8. We want AQMD to prepare and include an Environmental Justice Compliance D-9 Assessment. 9. We want AQMD to add an additional Public Meeting to include outreach to D-10 Environmental Justice and Disadvantaged Communities. **Current SCE Non-Compliance Legal Requirements:** 1. SCAQMD Rule 1135 a. (d) Emissions (1) Emission Limits for Boilers and Gas Turbines On and after January 1, 2024, the owner or operator of an electricity generating facility shall not operate a boiler or gas turbine in a manner that exceeds the NOx emission limits listed in Table 1: Emission Limits for Boilers and Gas Turbines, where: D-11 b. (d) Emissions (2) Electric Generating Units Located on Santa Catalina Island The owner or operator of an electricity generating facilitating facility located on Santa Catalina Island with diesel internal combustion engines shall: (A) By January 1, 2024, meet a mass emission limit from all electric generating units of 50 tons of NOX annually, including mass emissions from startups and shutdowns. (B) Not install any new diesel internal combustion engines after January 1, 2024.

- (C)By January 1, 2025, meet a mass emission limit from all electric generating units of 45 tons of NOx annually, including mass emissions from startups and shutdowns;
- (D)On and after January 1, 2026, meet a mass emission limit from all electric generating units of 13 tons of NOx annually, including mass emissions from startups and shutdowns

#### 2. CARB - California Health and Safety Code, HSC § 40406 (2023)

40406. As used in this chapter, "best available retrofit control technology" means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.

#### 3. CARB - California Assembly Bill 617 (AB 617)

(1) Existing law requires the State Air Resources Board to make available on its Internet Web site data concerning the emissions of greenhouse gases, criteria air pollutants, and toxic air contaminants, as specified.

This bill would require the state board to develop a uniform statewide system of annual reporting of emissions of criteria air pollutants and toxic air contaminants for use by certain categories of stationary sources. The bill would require those stationary sources to report their annual emissions of criteria air pollutants and toxic air contaminants, as specified.

(2) Existing law generally designates air pollution control and air quality management districts with the primary responsibility for the control of air pollution from all sources other than vehicular sources. Existing law authorizes the state board or an air district to require the owner or the operator of an air pollution emission source to take any action that the state board or the air district determines to be reasonable for the determination of the amount of air pollution emissions from that source.

This bill would require the state board, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and toxic air contaminants and the need for and benefits of additional community air monitoring systems, as defined. The bill would require the state board to select, based on the monitoring plan, the highest priority locations in the state for the deployment of community air monitoring systems. The bill would require an air district containing a selected location, by July 1, 2019, to deploy a system in the selected location. The bill would authorize the air district to require a stationary source that emits air pollutants in, or that materially affect, the selected location to deploy a fence-line monitoring system, as defined, or other specified real-time, on-site monitoring. The bill would authorize the state board, by January 1, 2020, and annually thereafter, to select additional locations for the deployment of the systems. The bill would require air districts that have deployed a system to provide to the state board air quality data produced by the system. By increasing the duties of air districts, this bill would impose a state-mandated local program. The bill would require the state board to publish the data on its Internet Web site.

This bill would require the state board, by October 1, 2018, to prepare and update, at least once every 5 years, a statewide strategy to reduce emissions of toxic air

D-10 (Cont.)

D-11

contaminants and criteria pollutants in communities affected by a high cumulative exposure burden. The bill would require the state board to select locations around the state for the preparation of community emissions reduction programs, and to provide grants to community-based organizations for technical assistance and to support community participation in the programs. The bill would require an air district containing a selected location, within one year of the state board's selection, to adopt a community emissions reduction program. By increasing the duties of air districts, this bill would impose a state-mandated local program.

(3) Existing law requires air districts, prior to adopting rules to meet the requirement for best available retrofit control technology or for a specified feasible measure, to take specified actions, including, among others, identifying one or more potential control options that achieve the emissions reduction objectives for the rule. Existing law also authorizes a district to establish its own best available retrofit control technology requirement based upon the consideration of specified factors.

This bill would require a district that is in nonattainment for one or more air pollutants to adopt an expedited schedule for the implementation of best available retrofit control technology, as specified. The bill would require the schedule to apply to each industrial source that, as of January 1, 2017, was subject to a specified market-based compliance mechanism and give highest priority to those permitted units that have not modified emissions-related permit conditions for the greatest period of time.

This bill would require the state board to establish and maintain a statewide clearinghouse that identifies the best available control technology, best available retrofit control technology for criteria air pollutants, and related technologies for the control of toxic air contaminants.

(4) Existing law establishes maximum criminal and civil penalties for any person, as defined, for violations of air pollution laws from nonvehicular sources. Existing law generally establishes the maximum criminal and civil penalties at \$1,000, unless otherwise specified.

This bill would increase the maximum for the generally applicable criminal and civil penalties under these provisions to \$5,000. The bill would annually adjust maximum penalties for violations of these laws based on the California Consumer Price Index.

#### CARB - California Assembly Bill 32 (AB 32) - California Health and Safety Code, HSC § 38500 (2006)

38501. The Legislature finds and declares all of the following:

(a) Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

(b) Global warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry. It will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the state.

D-12 (Cont.)

(c) California has long been a national and international leader on energy conservation and environmental stewardship efforts, including the areas of air quality protections, energy efficiency requirements, renewable energy standards, natural resource conservation, and greenhouse gas emission standards for passenger vehicles. The program established by this division will continue this tradition of environmental leadership by placing California at the forefront of national and international efforts to reduce emissions of greenhouse gases.

(d) National and international actions are necessary to fully address the issue of global warming. However, action taken by California to reduce emissions of greenhouse gases will have far-reaching effects by encouraging other states, the federal government, and other countries to act.

(e) By exercising a global leadership role, California will also position its economy, technology centers, financial institutions, and businesses to benefit from national and international efforts to reduce emissions of greenhouse gases. More importantly, investing in the development of innovative and pioneering technologies will assist California in achieving the 2020 statewide limit on emissions of greenhouse gases established by this division and will provide an opportunity for the state to take a global economic and technological leadership role in reducing emissions of greenhouse gases.

(f) It is the intent of the Legislature that the State Air Resources Board coordinate with state agencies, as well as consult with the environmental justice community, industry sectors, business groups, academic institutions, environmental organizations, and other stakeholders in implementing this division.

(g) It is the intent of the Legislature that the State Air Resources Board consult with the Public Utilities Commission in the development of emissions reduction measures, including limits on emissions of greenhouse gases applied to electricity and natural gas providers regulated by the Public Utilities Commission in order to ensure that electricity and natural gas providers are not required to meet duplicative or inconsistent regulatory requirements.

(h) It is the intent of the Legislature that the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases established pursuant to this division in a manner that minimizes costs and maximizes benefits for California's economy, improves and modernizes California's energy infrastructure and maintains electric system reliability, maximizes additional environmental and economic co-benefits for California, and complements the state's efforts to improve air quality.

(i) It is the intent of the Legislature that the Climate Action Team established by the Governor to coordinate the efforts set forth under Executive Order S-3-05 continue its role in coordinating overall climate policy.

#### 5. CARB - California Senate Bill 100 (SB 100) - Public Utilities Code

SECTION 1. This act shall be known as The 100 Percent Clean Energy Act of 2018.

(b) The Legislature finds and declares that the Public Utilities Commission, State Energy Resources Conservation and Development Commission, and State Air Resources Board should plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045.

D-13 (Cont.)

(c) It is the intent of the Legislature in enacting this act to extend and expand policies established pursuant to the California Renewables Portfolio Standard Program (Article 16 (commencing with Section 399.11) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code), and to codify the policies established pursuant to Section 454.53 of the Public Utilities Code, and that both be incorporated in long-term planning.		
SEC. 2. Section 399.11 of the Public Utilities Code is amended to read:		
399.11. The Legislature finds and declares all of the following:		
(a) In order to attain a target of generating 20 percent of total retail sales of electricity in California from eligible renewable energy resources by December 31, 2013, 33 percent by December 31, 2020, 50 percent by December 31, 2026, and 60 percent by December 31, 2030, it is the intent of the Legislature that the commission and the Energy Commission implement the California Renewables Portfolio Standard Program described in this article.		
(b) Achieving the renewables portfolio standard through the procurement of various electricity products from eligible renewable energy resources is intended to provide unique benefits to California, including all of the following, each of which independently justifies the program:		
(1) Displacing fossil fuel consumption within the state.		
(2) Adding new electrical generating facilities in the transmission network within the WECC service area.		
(3) Reducing air pollution, particularly criteria pollutant emissions and toxic air contaminants, in the state.	-	D-14 (Cont.)
(4) Meeting the state's climate change goals by reducing emissions of greenhouse gases associated with electrical generation.	5	
(5) Promoting stable retail rates for electric service.		
(6) Meeting the state's need for a diversified and balanced energy generation portfolio.		
(7) Assisting with meeting the state's resource adequacy requirements.		
(8) Contributing to the safe and reliable operation of the electrical grid, including providing predictable electrical supply, voltage support, lower line losses, and congestion relief.		
(9) Implementing the state's transmission and land use planning activities related to development of eligible renewable energy resources.		
(c) The California Renewables Portfolio Standard Program is intended to complement the Renewable Energy Resources Program administered by the Energy Commission and established pursuant to Chapter 8.6 (commencing with Section 25740) of Division 15 of the Public Resources Code.		
<ul> <li>(d) New and modified electric transmission facilities may be necessary to facilitate the state achieving its renewables portfolio standard targets.</li> <li>(e) (1) Supplying electricity to California end-use customers that is generated by eligible renewable energy resources is necessary to improve California's air quality</li> </ul>		

and public health, particularly in disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code, and the commission shall ensure rates are just and reasonable, and are not significantly affected by the procurement requirements of this article.

The Coalition For A Safe Environment et al community organizations respectfully file these Public Comments on behalf of our members, organization affiliations, the public and request that all issues identified and requests be accepted and included in the PAR 1153.

Jesse N. Marquez is the designated contact person for all community organizations for all future correspondence, information, questions, hearings and meetings. All community organizations reserve their rights to participate in all future meetings, discussion, actions, mediation and negotiations.



D-15

Respectfully Submitted,

Jesse M. Marguz

Jesse N. Marquez Executive Director Coalition For A Safe Environment 1601 N. Wilmington Blvd., Ste. B Wilmington, CA 90744 jnm4ej@yahoo.com 424-264-5959 310-590-0177

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Theral Golden Treasurer West Long Beach Association Robina Suwal Executive Director California Safe Schools

Rosalie Preston President Friends of the Air, Earth and Water

Robert A. Trani, Jr. Founder United Wilmington Youth Foundation

### **Response to Comment D-1**

See Response to Comment 1, 4, 5, B-1, and B-4.

### **Response to Comment D-2**

The Comparative Analysis presented in Table 4-3 of this report includes Federal or District rules and regulations applicable to the same source.

### **Response to Comment D-3**

It would be duplicative to include all applicable laws, orders, etc. within PAR 1135. Those legal requirements remain enforceable even if not included within PAR 1135.

### **Response to Comment D-4**

The proposed rule has no impact on the existing Rule 1135 until the proposed rule is adopted at which time the existing Rule 1135 will no longer be applicable. Penalties or fines for failure to comply with the existing Rule 1135 requirements is outside the scope of rule development.

### **Response to Comment D-5**

See Response to Comment 1, 5, A-3 through A-7, A-14, A-18, A-19, B-1, B-2, C-4, C-5, and C-8.

### **Response to Comment D-6**

The proposed emission limits are lower than the limits in the existing Rule 1135. Please see Response to Comment 1 and B-3.

### **Response to Comment D-7**

Please see Response to Comment 4,6, B-2 through B-4, and B-7.

### **Response to Comment D-8**

Please see Response to Comment 6, B-2, B-5, and B-8.

### **Response to Comment D-9**

There are environment justice and cumulative impact draft policies and guidance documents that are under deliberation but have not been finalized. Pursuant to CEQA and South Coast AQMD's Certified Regulatory Program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(1); codified in South Coast AQMD Rule 110), the South Coast AQMD, as lead agency for PAR 1135, prepared a Subsequent Environmental Assessment (SEA) for the proposed project. The SEA is a substitute CEQA document prepared pursuant to CEQA Guidelines Section 15252 and in lieu of a Subsequent Environmental Impact Report. The SEA tiers off of the November 2018 Final Mitigated SEA for the November 2018 amendments to Rule 1135,<sup>5</sup> as allowed by CEQA Guidelines Sections 15152, 15162, and 15385. The Draft SEA was released for a 46-day public review and comment period to provide public agencies and the public an opportunity to obtain,

<sup>&</sup>lt;sup>5</sup> South Coast AQMD, 2018. Final Mitigated Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, SCH No. 2016071006. http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/par-1135---final-mitigated-sea\_withappendices.pdf

review, and comment on the environmental analysis. Comments made relative to the analysis in the Draft SEA and responses to the comments will be included in the Final SEA.

#### **Response to Comment D-10**

Development of PAR 1135 was conducted through a public process. Six Working Group meetings were held on May 5, 2022, August 4, 2022, November 8, 2022, January 19, 2023, March 27, 2024, and June 13, 2024. The Working Group is composed of representatives from businesses, environmental groups, public agencies, and consultants. The purpose of the Working Group meetings is to discuss proposed concepts and work through the details of South Coast AQMD's proposal. Staff also reported on the progress of the BARCT assessment to the South Coast AQMD Stationary Source Committee on August 19, 2022. Additionally, a Public Workshop was held on February 22, 2023 and another one was held on July 31, 2024. The purpose of the Public Workshop is to present the proposed rule language to the general public and stakeholders and to solicit comment. Staff also conducted multiple site visits as part of this rule development process and has met with individual facility operators, technology vendors, and interested stakeholders. No further working group meetings or public workshops are planned.

#### **Response to Comment D-11**

Please see Response to Comment 1.

### **Response to Comment D-12**

South Coast AQMD determines BARCT. Southern California Edison cannot be in non-compliance with BARCT.

#### **Response to Comment D-13**

California Air Resources Board and air districts, including South Coast AQMD, implement California Assembly Bill AB 617 (AB 617). Southern California Edison cannot be in non-compliance with AB 617.

#### **Response to Comment D-14**

California Air Resources Board is tasked with implementing California Assembly Bill 32 (AB 32). Southern California Edison cannot be in non-compliance with AB 32.

#### **Response to Comment D-15**

California Energy Commission is tasked with implementing California Senate Bill 100 (SB 100). Southern California Edison cannot be in non-compliance with SB 100.

### **Response to Comment D-16**

Thank you for your comments regarding PAR 1135. Your comments and staff's responses to your comments are included in this report.

### ATTACHMENT I

## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## **Final Subsequent Environmental Assessment for:**

**Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities** 

September 2024

State Clearinghouse No. 2016071006 South Coast AQMD No. 20240801ST/ 09142018RB

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#### **EXECUTIVE OFFICER:**

WAYNE NASTRI

#### PREFACE

This document constitutes the Final Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities.

The Draft SEA was circulated for a 46-day public review and comment period from August 2, 2024 to September 17, 2024. Two comment letters were received during the comment period. The comments and responses relative to the Draft SEA are included in Appendix E of this Final SEA.

In addition, subsequent to the release of the Draft SEA for public review and comment, minor modifications were made to the proposed project. PAR 1135 was revised to allow the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for meeting each of the proposed NOx limits. Therefore, some modifications have been made to the Draft SEA to make it a Final SEA which include the aforementioned updates and additions made to PAR 1135 after the Draft SEA was released for the public review and comment period.

Relative to the environmental topic area "Hydrology and Water Quality," the summary of the less than significant hydrology and water quality impacts from the November 2018 Final Mitigated SEA was included in the "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have No Impacts" section of the Draft SEA when it should have been included in "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have Less Than Significant Impacts" section. For this reason, the analysis was relocated within the Final SEA from the "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have No Impacts" section to the "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have Less Than Significant Impacts" section to the "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have Less Than Significant Impacts" section. In addition, the hydrology and water quality impacts analysis was updated to acknowledge and account for minimal water use for dust control purposes during construction. However, the conclusion of less than significant hydrology and water quality impacts remained unchanged.

To facilitate identification of the changes between the Draft SEA and the Final SEA, modifications to the document are included as <u>underlined text</u> and text removed from the document is indicated by <del>strikethrough text</del>. To avoid confusion, minor formatting changes are not shown in underline or strikethrough mode.

South Coast AQMD staff has evaluated the modifications made to PAR 1135 after the release of the Draft SEA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the project and was considerably different from others previously analyzed, and 4) the Draft SEA did not deprive the public from meaningful review and comment. In addition, revisions to PAR 1135 and the analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA.

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# **CHAPTER 1**

## **EXECUTIVE SUMMARY**

Introduction

**California Environmental Quality Act** 

**Previous CEQA Documentation** 

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**Areas of Controversy** 

**Executive Summary** 

# **1.0 INTRODUCTION**

The California Legislature created the South Coast Air Quality Management District (South Coast AQMD) in 1977<sup>1</sup> as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin and portions of the Salton Sea Air Basin and Mojave Desert Air Basin. In 1977, amendments to the federal Clean Air Act (CAA) included requirements for submitting State Implementation Plans (SIPs) for nonattainment areas that fail to meet all federal ambient air quality standards [CAA Section 172], and similar requirements exist in state law. [Health and Safety Code Section 40462]. The federal CAA was amended in 1990 to specify attainment dates and SIP requirements for ozone, carbon monoxide (CO), nitrogen dioxide (NO2), and particulate matter with an aerodynamic diameter of less than 10 microns (PM10). In 1997, the United States Environmental Protection Agency (U.S. EPA) promulgated ambient air quality standards for particulate matter with an aerodynamic diameter less than 2.5 microns (PM2.5). The U.S. EPA is required to periodically update the national ambient air quality standards (NAAQS).

In addition, the California Clean Air Act (CCAA), adopted in 1988, requires the South Coast AQMD to achieve and maintain state ambient air quality standards for ozone, CO, sulfur dioxide, and NO2 by the earliest practicable date. [Health and Safety Code Section 40910]. The CCAA also requires a three-year plan review, and, if necessary, an update to the SIP. The CCAA requires air districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible measures pursuant to Health and Safety Code Sections 40913, 40914, and 40920.5. The term "feasible" is defined in the California Environmental Quality Act (CEQA) Guidelines<sup>2</sup> Section 15364, as a measure "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

By statute, the South Coast AQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the areas under the jurisdiction of the South Coast AQMD<sup>3</sup>. Furthermore, the South Coast AQMD must adopt rules and regulations that carry out the AQMP<sup>4</sup>. The AQMP is a regional blueprint for how the South Coast AQMD will achieve air quality standards and healthful air, and it contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases (GHGs), and toxic air contaminants (TACs). The 2016 AQMP<sup>5</sup> and 2022<sup>6</sup> AQMP state that both oxides of nitrogen (NOx) and volatile organic compounds (VOC) emissions need to be addressed, with the emphasis that NOx emission reductions are more effective to reduce the formation of ozone and PM2.5. Ozone is a criteria pollutant shown to adversely affect human health and is formed when VOCs react with NOx in the atmosphere. NOx is a precursor to the formation of ozone and PM2.5, and NOx emission reductions are necessary to achieve the ozone standard attainment. NOx emission reductions also contribute to attainment of PM2.5 standards.

<sup>&</sup>lt;sup>1</sup> The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., Ch. 324 (codified at Health and Safety Code Section 40400 40540).

<sup>&</sup>lt;sup>2</sup> The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq.* 

<sup>&</sup>lt;sup>3</sup> Health and Safety Code Section 40460(a).

<sup>&</sup>lt;sup>4</sup> Health and Safety Code Section 40440(a).

<sup>&</sup>lt;sup>5</sup> South Coast AQMD, Final 2016 Air Quality Management Plan, March 2017. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf</u>

<sup>&</sup>lt;sup>6</sup> South Coast AQMD, Final 2022 Air Quality Management Plan, December 2022. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf</u>

Rule 1135 is an industry-specific rule which applies to electric generating units (i.e., boilers, turbines, engines, etc.) that are at investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 Megawatts (MW) of electrical power for distribution in the state or local electrical grid system. Rule 1135, however, does not include facilities subject to South Coast AQMD Rule 1109.1 – Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations, South Coast AQMD Rule 1150.3 – Emissions of Oxides of Nitrogen from Combustion Equipment at Landfills, or South Coast AQMD Rule 1179.1 – Emission Reductions from Combustion Equipment at Publicly Owned Treatment Works Facilities.

In October 1993, the South Coast AQMD Governing Board adopted Regulation XX – Regional Clean Air Incentives Market (RECLAIM) to reduce NOx and oxides of sulfur (SOx) emissions from high emitting facilities. RECLAIM was designed to take a market-based approach to achieve emission reductions, as an aggregate. In addition, RECLAIM was intended to be equivalent to achieving emissions reductions under a command-and-control approach, but by providing facilities with the flexibility to seek the most cost-effective solution to reduce their emissions. The market-based approach used in RECLAIM was based on using a supply and demand concept, where the cost to control emissions and reduce a facility's emissions would eventually become less than the diminishing supply of NOx RECLAIM trading credits (RTCs). However, the analysis of the effectiveness of RECLAIM over the long term has shown that the ability to achieve actual NOx emission reductions had diminished due to a large amount of RTCs resulting from shutdowns being re-introduced into the market prior to the October 2016 amendments to Rule 2002 to address this issue.

When RECLAIM was adopted in 1993, electricity generating facilities were included in the NOx RECLAIM program with the exception of electricity generating facilities that were owned and operated by the City of Burbank, City of Glendale, and the City of Pasadena that were allowed to opt-in to the program. The cities of Burbank and Pasadena opted-in to RECLAIM, while the City of Glendale remained regulated by command-and-control rules. In response to an increased demand for power generation and delayed installation of controls by electricity generating facilities, in May 2001, the South Coast AQMD Governing Board adopted the South Coast AQMD Rule 2009 – Compliance Plan for Power Producing Facilities<sup>7</sup>, which required installation of Best Available Retrofit Control Technology (BARCT) through compliance plans at electricity generating facilities. As a result, much of the equipment at electricity generating facilities was retrofitted or replaced to meet lower NOx emission limits. However, the diesel internal combustion engines providing power to Santa Catalina Island were not subject to Rule 2009 because the facility capacity was less than 50 MW and as such, did not qualify as a Power Producing Facility. Instead, the electric generating units located on Santa Catalina Island were subject to South Coast AQMD Rule 2009.1 – Compliance Plans and Forecast Reports for Non Power Producing Facilities<sup>8</sup>, which resulted in installation of selective catalytic reduction technology (SCR) on the diesel internal combustion engines.

In the 2016 AQMP, Control Measure CMB-05 – Further NOx Reductions from RECLAIM Assessment, committed to additional NOx emission reductions of five tons per day to occur by 2025. Also, the South Coast AQMD Governing Board directed staff to implement an orderly sunset of the RECLAIM program to achieve the additional five tons per day of NOx emission reductions. Thus, CMB-05 committed to a process of transitioning NOx RECLAIM facilities to a

<sup>&</sup>lt;sup>7</sup> South Coast AQMD, Rule 2009, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xx/rule-2009-compliance-plan-for-power-producing-facilities.pdf</u>

<sup>&</sup>lt;sup>8</sup> South Coast AQMD, Rule 2009.1, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xx/rule-2009-1.pdf</u>

command-and-control regulatory structure and ensure that the applicable equipment will meet BARCT level equivalency as soon as practicable.

On July 26, 2017, Governor Brown approved California State Assembly Bill (AB) 617, which addressed community monitoring and non-vehicular air pollution (criteria pollutants and toxic air contaminants).<sup>9</sup> AB 617 also contained an expedited schedule for implementing BARCT for capand-trade facilities. Industrial source RECLAIM facilities that are in the cap-and-trade program are subject to the requirements of AB 617. Under AB 617, air districts were required to develop, by January 1, 2019, an expedited schedule for the implementation of BARCT no later than December 31, 2023, with the highest priority given to older, higher-polluting units that will need retrofit controls installed.

Shortly thereafter, amendments to Rule 1135 were adopted on November 2, 2018 which established BARCT NOx limits necessary for transitioning electric generating facilities subject to the RECLAIM to a command-and-control regulatory structure and to implement Control Measure CMB-05 of the 2016 AQMP and AB 617. The 2018 amendments expanded Rule 1135 applicability to all electric generating units at RECLAIM NOx, former RECLAIM NOx, and non-RECLAIM NOx electricity generating facilities. The amendments updated emission limits to reflect current BARCT levels at that time and to provide implementation timeframes for boilers, gas turbines, and internal combustion engines located on Santa Catalina Island. Additionally, the 2018 amendments to Rule 1135 established provisions for monitoring, reporting, and recordkeeping, and exemptions from specific provisions. At the time, six facilities were identified as potentially needing modifications in order to achieve the emission limits in Rule 1135. Of these affected facilities, all but one facility, the electricity generating facility located on Santa Catalina Island, has either made modifications to achieve the emission limits in Rule 1135 or is no longer subject to Rule 1135 requirements.

More recently, Rule 1135 was amended on January 7, 2022 to: 1) remove ammonia limits; 2) update provisions for Continuous Emission Monitoring Systems (CEMS); 3) include a reference to South Coast AQMD Rule 429.2 – Startup and Shutdown Exemption Provisions for Oxides of Nitrogen From Electricity Generating Facilities<sup>10</sup> to clarify startup and shutdown requirements; and 4) revise requirements for diesel internal combustion engines on Santa Catalina Island. At the time, stakeholders commented that an updated BARCT assessment was warranted due to the change in averaging time and that the BARCT assessment should emphasize zero-emission (ZE) technologies. The adopted resolution directed South Coast AQMD staff to re-initiate rule development in 2022 which included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives as well as ZE and near-zero emission (NZE) technologies.

In December 2022, the South Coast AQMD adopted the 2022 AQMP which included a series of control measures to achieve the 2015 8-hour ozone NAAQS. In particular, Control Measure L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, focused on large combustion sources and assessing low NOx and ZE technologies for power generation, and specifically mentioned replacing existing diesel internal combustion engines with lower-emitting technologies.

<sup>&</sup>lt;sup>9</sup> Assembly Bill 617, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201720180AB617

<sup>&</sup>lt;sup>10</sup> South Coast AQMD, Rule 429.2, <u>http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-429-2.pdf</u>

Additional amendments to Rule 1135 are currently proposed to address stakeholder comments raised during the January 2022 amendments and partially implement Control Measure L-CMB-06 of the 2022 AQMP. Proposed Amended Rule (PAR) 1135 applies to electric generating units at electricity generating facilities that are investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 MW of electrical power for distribution in the state or local electrical grid system.

For the electricity generating facility located on Santa Catalina Island which operates six diesel internal combustion engines and 23 microturbines to generate power, staff conducted a BARCT assessment and <del>learned confirmed</del> that over 90 percent (%) of the power generated is from diesel internal combustion engines. These six diesel engines were last modified in 2003 to install selective catalytic reduction (SCR) technology. No other modifications have been made to address the 2018 amendments to Rule 1135. As such, PAR 1135 has been crafted to establish NOx emission limits for electric generating units located on Santa Catalina Island. PAR 1135 also includes monitoring, reporting, and recordkeeping requirements for electric generating units located on Santa Catalina Island.

# 1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented, if feasible. The purpose of the CEQA process is to inform the South Coast AQMD Governing Board, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing the proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of a Negative Declaration or EIR once the Secretary of the Resources agency has certified the regulatory program. The South Coast AQMD's regulatory program was certified on March 1, 1989 [CEQA Guidelines Section 15251(1)]. In addition, the South Coast AQMD adopted Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment, which implements the South Coast AQMD's certified regulatory program. Under the certified regulatory program, the South Coast AQMD typically prepares an Environmental Assessment (EA) to evaluate the environmental impacts for rule projects proposed for adoption or amendment.

PAR 1135 is considered a "project" as defined by CEQA. For the electricity generating facility located on Santa Catalina Island, PAR 1135 proposes to: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024, to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions (with a three year extension option to meet by January 1, 2033) with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic

cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting each of 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

The March 2017 Final Program Environmental Impact Report (EIR) for the 2016 AQMP<sup>11</sup> determined that the overall implementation of Control Measure CMB-05, the basis in part for the 2018 amendments to Rule 1135 which updated the NOx emission limits to reflect current BARCT levels at that time and to provide implementation timeframes for boilers, gas turbines, and internal combustion engines located on Santa Catalina Island, had the potential to generate adverse environmental impacts in seven topic areas – air quality, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation. More specifically, the March 2017 Final Program EIR for the 2016 AQMP evaluated the impacts from installation and operation of additional control equipment and SCR or selective non-catalytic reduction (SNCR) equipment potentially resulting in construction emissions, increased electricity demand, hazards from additional ammonia transport and use, increase in water use and wastewater discharge, changes in noise volume, generation of solid waste from construction and disposal of old equipment, and catalysts replacements, as well as changes in traffic patterns and volume. For the entire 2016 AQMP, the analysis in the March 2017 Final Program EIR concluded that significant and unavoidable adverse environmental impacts were expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction-related air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to (a) increased flammability of solvents; (b) storage, accidental release, and transportation of ammonia, (c) storage and transportation of liquefied natural gas; and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and 8) transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. Since significant adverse environmental impacts were identified, mitigation measures were identified and applied. However, the March 2017 Final Program EIR concluded that the 2016 AQMP would have significant and unavoidable adverse environmental impacts even after mitigation measures were identified and applied. As such, mitigation measures were made a condition of project approval and a Mitigation, Monitoring, and Reporting Plan was adopted. Findings were made and a Statement of Overriding Considerations was adopted by the South Coast AQMD Governing Board.

The purpose of the November 2018 amendments to Rule 1135 was to reduce NOx emissions from RECLAIM and non-RECLAIM electricity generating facilities which are owned or operated by an investor-owned electric utility, a publicly owned electric utility, or have electric generating units with a combined generation capacity of 50 MW or more of electrical power for distribution in the state or local electrical grid system. South Coast AQMD staff determined that the November

<sup>&</sup>lt;sup>11</sup> South Coast AQMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <u>http://www.aqmd.gov/home/research/documents-reports/lead-agency-SCAQMD-projects/SCAQMD-projects---year-2017</u>

2018 amendments to Rule 1135 contained new information of substantial importance which was not known and could not have been known at the time the March 2017 Final Program EIR for the 2016 AQMP was certified, and the type of CEQA document appropriate to evaluate the environmental impacts of the November 2018 amendments was a Mitigated Subsequent Environmental Assessment (SEA). The Final Mitigated SEA<sup>12</sup> for the November 2018 amendments to Rule 1135 was certified by the South Coast AQMD Governing Board on November 2, 2018 (referred to herein as the November 2018 Final Mitigated SEA for Rule 1135) and analyzed the environmental impacts associated with the activities that the six affected facilities at that time (referred to as Facility 1, 2, 3, 4, 5, and 6) were expected to undertake to ensure compliance with amended Rule 1135. While the reduction of NOx emissions was expected to create an environmental benefit, the November 2018 amendments to Rule 1135 were anticipated to create potentially significant adverse environmental impacts for the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia. As such, mitigation measures were crafted that were shown to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels. To date, the construction activities undertaken in response to the 2018 amendments to Rule 1135 have been completed at Facilities 1, 4, and 5. Regarding Facility 6, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction and operational emissions associated with catalyst module replacement in SCR for their simple cycle turbine; however, this facility permanently shut down their turbine at the beginning of 2020. Therefore, the previously analyzed construction and operational emissions attributed to Facility 6 in the November 2018 Final Mitigated SEA have not occurred and will not occur in the future. Regarding Facility 3, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction emissions associated with removing three existing boilers, and installing up to three new turbines with three new SCRs and one new aqueous ammonia storage tank. Instead, Facility 3 indicated that their repower project would shut down and remove their three existing boilers by January 1, 2024, and install set of batteries and three new prime natural gas internal combustion (IC) engines. Because Rule 1135 is not applicable to prime natural gas IC engines and batteries, Facility 3 will no longer be subject to Rule 1135. Therefore, of the six affected facilities identified as being subject to Rule 1135 in the November 2018 Final Mitigated SEA, only Facility 2 has yet to undergo physical modifications necessary to achieve the NOx emission limits contained in the 2018 amendments to Rule 1135. Regarding Facility 2, the November 2018 Final Mitigated SEA for Rule 1135 originally analyzed the environmental impacts associated with replacing five diesel engines with five new Tier 4 Final diesel engines to comply with a NOx emission limit of 13 tpy by January 1, 2026.

On January 7, 2022, Rule 1135 was amended to: 1) remove ammonia limits which would be addressed during the permit application process; 2) reference Rule 429.2 for startup and shutdown requirements; 3) add references to the September 2022 Rule 218-series rules relating to requirements for CEMS; and 4) revise the requirements for diesel internal combustion engines located on Santa Catalina Island. The 2022 amendments to Rule 1135 specifically established interim NOx emission limits (i.e., 50 tpy by January 1, 2024 and 45 tpy by January 1, 2025) for the electricity generating facility located on Santa Catalina Island. Since the 2022 amendments to Rule 1135 were not expected to cause new physical modifications, no significant adverse impacts on the environment were identified. Thus, the South Coast AQMD Governing Board determined on January 7, 2022 that the 2022 amendments to Rule 1135 were exempt from CEQA pursuant to

<sup>&</sup>lt;sup>12</sup> South Coast AQMD, 2018. Final Mitigated Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, SCH No. 2016071006. <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/par-1135---final-mitigated-sea\_with-appendices.pdf</u>

CEQA Guidelines Section 15061(b)(3); and a Notice of Exemption (NOE) was prepared pursuant to CEQA Guidelines Section 15062.

Currently, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. Table 1-1 shows the previous, current and proposed NOx emissions limits for the electric generating facility located on Santa Catalina Island as well their corresponding compliance dates.

Version of Rule 1135	NOx limit (tpy)	Compliance date	Corresponding CEQA document
2018	13	1/1/2026	November 2018 Final Mitigated SEA
2022	50	1/1/2024	NOE
	45	1/1/2025	NOE
	45	1/1/2027 (with a	
		potential	
		extension up to	
		three years)*	
	30	1/1/2028 (with a	August 2024 Draft SEA
		potential	
		extension up to	
PAR 1135		three years)*	
FAR 1155	13	1/1/2030 (with a	August 2024 Drait SEA
		potential	
		extension up to	
		three six years)*	
	6	1/1/2035 (with a	
		potential	
		extension up to	
		three six years)*	

 Table 1-1

 Previous, Current, and Proposed NOx Emissions Limits and Compliance Dates for the Electric Generating Facility Located on Santa Catalina Island

\* Subject to specific criteria and approval by South Coast AQMD

When comparing the types of activities and environmental impacts resulting from the implementation of Rule 1135 amendments that were previously analyzed in the November 2018 Final Mitigated SEA, to the currently proposed changes which comprise PAR 1135, the type and extent of the physical changes are expected to be similar and to cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the November 2018 Final Mitigated SEA for Rule 1135. Thus, the proposed project is expected to have generally the same or similar effects that were previously examined in the November 2018 Final Mitigated SEA for Rule 1135. However, the air quality impacts from PAR 1135 will cause

delayed NOx emission reductions, interim exceedances of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of ambient air quality standards for PM2.5 and PM10, and interim operational cancer risks which will be more severe than what was discussed in November 2018 Final Mitigated SEA. Specifically, PAR 1135 will result in delayed NOx emission reductions due to: 1) removing the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delaying the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years), and 3) delaying the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years). Eventually, PAR 1135 will reduce the NOx mass emission limit from 13 tpy to 6 tpy on and after January 1, 2035 (with a potential extension up to three-six years). If any extension is granted for any the 13 tpy-NOx emission limit as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time and corresponding impacts will be prolonged. Potentially significant exceedances of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of ambient air quality standards for PM2.5 and PM10 are also expected during the operation of electricity generating facility located on Santa Catalina Island when meeting the proposed 30 tpy NOx limit by January 1, 2028 (with a potential extension up to three years). However, once this facility makes modifications necessary to achieve the 13 tpy NOx limit by January 1, 2030 (with a potential extension up to three-six years), the project-specific changes in the 24-hour average ambient air quality concentrations of PM2.5 and PM10 will no longer exceed the South Coast AQMD's air quality significance thresholds of significance for these pollutants (i.e., 2.5  $\mu$ g/m<sup>3</sup>, and 2.5  $\mu$ g/m<sup>3</sup>, respectively). Moreover, because the facility intends to replace the existing diesel engines with Tier 4 Final diesel engines, potentially significant operational cancer risk impacts from diesel particulate matter (DPM) are expected to occur for the 45 tpy, 30 tpy, and 13 tpy NOx limits by January 1, 2027 (with a potential extension up to three years), January 1, 2028 (with a potential extension up to three years), and January 1, 2030 (with a potential extension up to three six years), respectively. However, once this facility makes modifications necessary to achieve the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to three six years), the operational cancer risk will no longer exceed the South Coast AQMD's thresholds of significance (i.e., 10 in a million).

Therefore, the proposed project contains new information of substantial importance which was not known and could not have been known at the time the November 2018 Final Mitigated SEA for Rule 1135 was certified. [CEQA Guidelines Section 15162(a)(3)]. Moreover, the analysis indicates that the type of CEQA document appropriate for the proposed project is a SEA, which contains the environmental analysis required by CEQA Guidelines Section 15187 and tiers off of the November 2018 Final Mitigated SEA for Rule 1135. Thus, this SEA is a subsequent document to the November 2018 Final Mitigated SEA for Rule 1135.

Because this is a subsequent document, the baseline is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135. The SEA is a substitute CEQA document, prepared in lieu of a Subsequent EIR with significant impacts [CEQA Guidelines Section 15162], pursuant to South Coast AQMD's Certified Regulatory Program [CEQA Guidelines Section 15251(1)]; codified in South Coast AQMD Rule 110. The SEA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers, and the general public with information on the environmental impacts of the proposed project; and 2) be used as a tool by decision makers to facilitate decision making on the proposed project. Thus, the South Coast AQMD, as lead agency for the proposed project has prepared this SEA with significant impacts. In addition, since significant adverse impacts have been identified, an alternatives analysis is required and has been included in this SEA. The Draft SEA is beinghas been released and circulated for a 46-day public review and comment period from August 2, 2024 to September 17, 2024. Two comment letters were received during the comment period. The comments and responses relative to the Draft SEA are included in Appendix E of this Final SEA. Any comments on the analysis presented in this Draft SEA received during the public comment period will be responded to and included in an appendix of the Final SEA.

The November 2018 Final Mitigated SEA for Rule 1135 (State Clearinghouse No. 2016071006) upon which this SEA relies, is incorporated by reference pursuant to CEQA Guidelines Section 15150 and is available from the South Coast AQMD's website at:

# November 2018 Final Mitigated SEA for Rule 1135:

http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/par-1135---final-mitigated-sea\_with-appendices.pdf

The above document may also be obtained from the South Coast AQMD's Public Information Center by calling (909) 396-2039 or by email <u>PICrequests@aqmd.gov</u>, or by contacting Derrick Alatorre - Deputy Executive Officer/Public Advisor, South Coast AQMD, 21865 Copley Drive, Diamond Bar, CA 91765, (909) 396-2432, <u>PublicAdvisor@aqmd.gov</u>.

South Coast AQMD staff has evaluated the modifications made to PAR 1135 after the release of the Draft SEA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the project and was considerably different from others previously analyzed, and 4) the Draft SEA did not deprive the public from meaningful review and comment. In addition, revisions to PAR 1135 and the analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA.

Prior to making a decision on the adoption of the proposed project, the South Coast AQMD Governing Board must review and certify the Final SEA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1135.

# **1.2 PREVIOUS CEQA DOCUMENTATION**

South Coast AQMD rules, as ongoing regulatory programs, have the potential to be revised over time due to a variety of factors (e.g., regulatory decisions by other agencies, new data, lack of progress in advancing the effectiveness of control technologies to comply with requirements in technology forcing rules, new more stringent national ambient air quality standards, etc.).

Rule 1135 was adopted in August 1989 to reduce NOx emissions from electricity generating facilities and has been amended three times with the last amendment in January 2022. For the electricity generating facility located on Santa Catalina Island, PAR 1135 proposes to: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024 to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions (with a three-year extension option to meet by January 1, 2033) with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting each of 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, this SEA tiers off of the November 2018 Final Mitigated SEA for Rule 1135, which is summarized below:

Final Mitigated Subsequent Environmental Assessment for Proposed Amended Rule 1135 -Emissions of Oxides of Nitrogen from Electricity Generating Facilities; November 2018: Amendments to Rule 1135 were adopted in November 2018 to reduce NOx emissions from RECLAIM and non-RECLAIM electricity generating facilities which are owned or operated by an investor-owned electric utility, a publicly owned electric utility, or have electric generating units with a combined generation capacity of 50 MW or more of electrical power for distribution in the state or local electrical grid system. The amendments to Rule 1135: 1) expanded the rule's applicability to include units at RECLAIM electricity generating facilities and units at electricity generating facilities that were not at electric power generating systems previously subject to Rule 1135; 2) updated the NOx and ammonia emission limits for boilers and gas turbines; 3) established NOx emission limits and added new emission limits for ammonia, CO, VOC, and particulate matter for internal combustion engines; 4) revised monitoring, reporting, and recordkeeping requirements; and 5) revised exemptions. Approximately 1.7 tons per day of NOx emission reductions were expected to be achieved as a result of implementing the November 2018 version of Rule 1135. While the reduction of NOx emissions was expected to create an environmental benefit, the activities that the affected facilities were expected to undertake to ensure compliance with amended Rule 1135 were anticipated to also create potentially significant adverse environmental impacts for the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia. As such, mitigation measures were crafted that were shown to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels. The South Coast AQMD Governing Board certified the Final Mitigated SEA and approved the amendments to Rule 1135 on November 2, 2018. The November 2018 Final Mitigated SEA can be obtained by visiting the South Coast AQMD website at: <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/par-1135---final-mitigated-sea\_with-appendices.pdf.</u>

## **1.3 INTENDED USES OF THIS DOCUMENT**

In general, a CEQA document is an informational document that informs a public agency's decision-makers and the public generally of potentially significant adverse environmental effects of a project, identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project. [CEQA Guidelines Section 15121]. A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this SEA is intended to: a) provide the South Coast AQMD Governing Board and the public with information on the environmental effects of the proposed project; and b) be used as a tool by the South Coast AQMD Governing Board to facilitate decision-making on the proposed project.

Additionally, CEQA Guidelines Section 15124(d)(1) requires a public agency to identify the following specific types of intended uses of a CEQA document:

- 1. A list of the agencies that are expected to use the SEA in their decision-making;
- 2. A list of permits and other approvals required to implement the project; and
- 3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

In addition to the South Coast AQMD's Governing Board, which will consider the SEA for the proposed project in their decision-making, the California Air Resources Board (CARB), a state agency, and the U.S. EPA, a federal agency, will be reviewing the SIP submittal for PAR 1135 which contains all supporting documents, including the SEA. Moreover, PAR 1135 is not subject to any other related environmental review or consultation requirements.

To the extent that local public agencies, such as cities, county planning commissions, et cetera, are responsible for making land use and planning decisions related to projects that must comply with the requirements in the proposed project, they could possibly rely on this SEA during their decision-making process. Similarly, other single purpose public agencies approving projects at facilities complying with the proposed project may rely on this SEA.

For any affected facility operator who proposes to install power generating equipment and other components necessary to the installation of that equipment for the purpose of complying with the NOx emission limits in the proposed project, South Coast AQMD permit applications and a CEQA review would be required to determine if the project could rely on this SEA or if further CEQA analysis is warranted before any approvals can be granted.

This proposed project will be reviewed by both CARB and the U.S. EPA to determine if PAR 1135 should be approved into the SIP as required under the federal Clean Air Act. The U.S. EPA's approval is subject to a public review process generally of at least 30 days after publication in the Federal Register. South Coast AQMD staff is not aware of any additional environmental review or consultation requirements to carry out the emission reduction projects necessary to implement

PAR 1135, except that the local lead agency may determine that further CEQA analysis is necessary, depending on the specifics of those future projects.

## **1.4 AREAS OF CONTROVERSY**

CEQA Guidelines Section 15123(b)(2) requires a public agency to identify the areas of controversy in the CEQA document, including issues raised by agencies and the public. Over the course of developing PAR 1135, the predominant concerns expressed by representatives of industry and environmental groups, either in public meetings or in written comments, regarding the proposed project are highlighted in Table 1-2.

	Area of Controversy	Topics Raised by the Public, Agencies, and/or Stakeholders	South Coast AQMD Evaluation
1.	BARCT/BACT /LAER for Tier 4 Final diesel engines	Until a new analysis concludes otherwise, Tier 4 Final diesel engines remain BARCT, BACT, and LAER.	The rule development process determines BARCT, not BACT/LAER. The BARCT assessment in the Preliminary Draft Staff Report acknowledges the challenges and limitations of acquiring additional land but is not limited to the Pebbly Beach Generating Station (PBGS) footprint, and therefore incorporates, but is not limited to, the Tier 4 Final diesel engines. Further, BACT/LAER is determined by class and category of equipment and fuel availability on the island. The South Coast AQMD Engineering & Permitting Division will determine if Tier 4 Final diesel engines are BACT/LAER through the permit process.
2.	Delay prohibition on new diesel engines	Allowing Southern California Edison (SCE) to replace diesel engines with new Tier 4 Final diesel engines would reduce the facility's NOx emissions.	PAR 1135 contains a provision that intends to allow three new Tier 4 Final diesel internal combustion engines to be installed provided that a maximum cumulative rating of 5.5 MW is not exceeded. However, the required NOx reductions sought by PAR 1135, as well as the need to reduce DPM emissions, a toxic, will not be fully achieved solely with new Tier 4 Final diesel engines.
3.	Adjust implementation schedule	Timeline to start construction and operate new Tier 4 Final diesel engines needs to be adjusted to take into account permitting complexity, global supply chain issues, and facility construction constraints.	Staff extended the deadline to replace diesel internal combustion engines by four years from January 1, 2024 to January 1, 2028 (with a potential extension up to three years).

Table 1-2Areas of Controversy

	Area of Controversy	Topics Raised by the Public, Agencies, and/or Stakeholders	South Coast AQMD Evaluation
4.	Adjust mass emission limit	NOx emission limit of 13 tpy is based on an unrealistic assumption that fossil fueled equipment can be completely replaced with ZE or NZE technology. SCE remains opposed to a facility mass emission limit because it disallows future load growth.	The 13 tpy NOx emission limit was adopted in the November 2018 amendments to Rule 1135 and is not new to PAR 1135. Moreover, PAR 1135 contains a four-year extension of the compliance date (e.g., from January 1, 2026 to January 1, 2030 (with a potential <u>extension up to six years</u> ) for the 13 tpy NOx emission limit. PAR 1135 also includes a final NOx limit of 6 tpy with a compliance date of January 1, 2035 (with a potential extension up to six years) and can be achieved through any combination of ZE/NZE technologies and Tier 4 Final diesel engines, so the cleaner the technology, the more opportunity there is for load growth and staying within the emission cap.
5.	Prohibition on new diesel engines	Prohibition deadline to install new diesel engines should not be revised.	Due to limited available space both onsite at the PBGS facility and elsewhere on Santa Catalina Island for purchase or lease, fire code requirements regarding the storage, and dispensing of other non- diesel fuels, and only space for one barge to periodically deliver fuel to supply the engines, Tier 4 Final diesel engines are necessary to provide power on Santa Catalina Island. Tier 4 Final diesel engines emit fewer pollutants than the diesel engines currently operating at PBGS. PAR 1135 also contains interim and final NOx emission limits that are technologically feasible with any combination of technologies which cannot be achieved solely by Tier 4 Final diesel engines.

# Table 1-2 (concluded)Areas of Controversy

Pursuant to CEQA Guidelines Section 15131(a), "[e]conomic or social effects of a project shall not be treated as significant effects on the environment." CEQA Guidelines Section 15131(b) states further, "[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project." Physical changes that may be caused by the proposed project have been evaluated in Chapter 4 of this Draft SEA. No direct or indirect physical changes resulting from economic or social effects have been identified as a result of implementing PAR 1135.

# **1.5 EXECUTIVE SUMMARY**

CEQA Guidelines Section 15123 requires a CEQA document to include a brief summary of the proposed actions and their consequences. In addition, areas of controversy must also be included in the executive summary (see preceding discussion). This SEA consists of the following chapters: Chapter 1 – Executive Summary, Chapter 2 – Project Description, Chapter 3 – Existing Setting, Chapter 4 – Environmental Impacts, Chapter 5 – Alternatives, Chapter 6 – References, Chapter 7 – Acronyms, and various appendices. The following subsections briefly summarize the contents of Chapters 1 through 5.

## **Summary of Chapter 1 – Executive Summary**

Chapter 1 includes an introduction of the proposed project and a discussion of the legislative authority that allows the South Coast AQMD to amend and adopt air pollution control rules, identifies general CEQA requirements and the intended uses of this CEQA document, and summarizes the remaining four chapters that comprise this SEA.

## **Summary of Chapter 2 – Project Description**

South Coast AQMD Rule 1135 is an industry-specific rule which applies to electric generating units (i.e., boilers, turbines, engines, etc.) at investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 MW of electrical power for distribution in the state or local electrical grid system.

During the 2022 amendments to Rule 1135, stakeholders urged staff to conduct a BARCT analysis of electric generating units located on Santa Catalina Island emphasizing ZE technologies. In response to stakeholder comments, staff performed a BARCT analysis with a focus on ZE and NZE technologies to repower Santa Catalina Island.

For the electricity generating facility located on Santa Catalina Island, PAR 1135 proposes to: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024 to January 1, 2028 (or six months after any applicable extensions); 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions (with a three-year extension option to meet by January 1, 2033) with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria

needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting each of 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

PAR 1135 will partially implement Control Measure L-CMB-06\_of the 2022 AQMP, and is estimated to reduce NOx emissions at the electricity generation facility located on Santa Catalina Island by 65.3 tpy by January 1, 2035\_or after any applicable extensions.

## Summary of Chapter 3 – Existing Setting

Pursuant to CEQA Guidelines Section 15125, Chapter 3 – Existing Setting, includes a description of the existing environmental setting of the environmental topic areas that are expected to have potentially significant changes if the proposed project is implemented.

PAR 1135 will affect one electricity generating facility located on Santa Catalina Island. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, this SEA tiers off of the November 2018 Final Mitigated SEA for Rule 1135.

The existing environmental setting is the physical environmental conditions as they existed at the time the Notice of Preparation (NOP) and Initial Study (IS) was published, or if no NOP/IS is published, at the time the environmental analysis is commenced [CEQA Guidelines Section 15125]. For the November 2018 amendments to Rule 1135, no NOP/IS was prepared, but the environmental analysis commenced on September 14, 2018 when the Notice of Completion (NOC) announcing the availability of the Draft Mitigated SEA was released for public review and comment. The Draft Mitigated SEA for PAR 1135 contained an environmental checklist, the same environmental checklist used when preparing a NOP/IS, plus a detailed analysis of the environmental setting and corresponding environmental effects specifically tailored to implementing the proposed amendments at that time. When comparing the types of activities and environmental impacts previously analyzed for the November 2018 amendments to Rule 1135 in the November 2018 Final Mitigated SEA to the currently proposed changes which comprise PAR 1135, the type and extent of the physical changes are expected to be similar and will cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the November 2018 Final Mitigated SEA, except that only one facility will be subject to PAR 1135 while six facilities were subject to the November 2018 amendments to Rule 1135. Based on the preceding discussion, the baseline that was established at the time the NOC was published for the September 2018 Draft Mitigated SEA directly corresponds to the currently proposed project since the nature of the physical impacts that may occur as a result of implementing PAR 1135 are the same or similar to the previous analysis in the November 2018 Final Mitigated SEA. Thus, the baseline for the analysis in this SEA is the project analyzed in the November 2018 Final Mitigated SEA.

This SEA analyzes the incremental changes that may occur subsequent to the November 2018 Final Mitigated SEA if PAR 1135 is implemented. In addition, the analysis in this SEA independently considers whether the proposed project would result in new significant impacts for any of the other environmental topic areas previously concluded in the November 2018 Final Mitigated SEA to have either no significant impacts or less than significant impacts (with or without mitigation) and no environmental topic area was identified as having potentially significant adverse impacts. A description and the basis for this conclusion is included in Chapter 4 of this SEA.

As such, Chapter 3 of this Draft SEA contains subchapters devoted to describing the existing setting for air quality which was the only environmental topic area identified as having potentially significant adverse environmental impacts if PAR 1135 is implemented.

## Summary of Chapter 4 – Environmental Impacts

CEQA Guidelines Section 15126(a) requires a CEQA document to identify and focus on the "significant environmental effects of the proposed project." Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. In addition, CEQA Guidelines Section 15126(b) requires a CEQA document to identify the significant environmental effects that cannot be avoided if the proposed project is implemented. CEQA Guidelines Section 15126(c) also requires a CEQA document to consider and discuss the significant irreversible environmental changes that would be involved if the proposed project is implemented. Further, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss the significant irreversible environmental changes that would be involved if the proposed project is implemented. Further, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss the significant irreversible environmental changes that would be involved if the proposed project is implemented. Further, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss mitigation measures proposed to minimize the significant effects. Finally, CEQA Guidelines Section 15130 requires a CEQA document to discuss whether the proposed project has cumulative impacts. Chapter 4 considers and discusses each of these requirements.

PAR 1135 has been mainly developed to update the annual NOx emission limits and compliance dates for the electric generating facility located on Santa Catalina Island. As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, this SEA tiers off of the November 2018 Final Mitigated SEA for Rule 1135. As explained in the Summary of Chapter 3, the baseline for the analysis in this SEA is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135.

This SEA is a comprehensive environmental document that programmatically analyzes potential incremental environmental impacts from implementing the proposed project relative to the existing setting established in the November 2018 Final Mitigated SEA for Rule 1135. The analysis examines the activities that the affected facilities would be expected to undertake to comply with PAR 1135. The analysis of the effects of PAR 1135 indicates that the topic of air quality will be affected due to delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for project-specific changes in the</u> 24-hour average <u>— ambient air quality standards for concentrations of PM2.5 and PM10, and interim cancer risks, which will be more severe than what was previously contemplated in the November 2018 Final Mitigated SEA.</u>

## <u>Potential Environmental Impacts Found to be Significant: Air Quality and Greenhouse Gas</u> <u>Emissions Impacts</u>

This SEA tiers off of the November 2018 Final Mitigated SEA for Rule 1135 which analyzed the environmental impacts associated with the potential modifications that may be expected to occur at six affected electricity generating facilities to comply with the BARCT emission limits in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no environmental topic areas, except for hazards and hazardous materials, would have potentially significant adverse environmental impacts. Moreover, mitigation measures were crafted in the November 2018 Final Mitigated SEA that were shown to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels.

The analysis in this SEA independently considers whether PAR 1135 would result in new significant impacts for any environmental topic areas previously concluded in the November 2018 Final Mitigated SEA for Rule 1135 to have either no significant impacts or less than significant impacts (with or without mitigation). Among the environmental areas examined for PAR 1135, only the topic of air quality will have new significant impacts due to the potential for delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for project-specific changes in the</u> 24-hour average <del>ambient air quality standards for concentrations of</del> PM2.5 and PM10, and interim cancer risk impacts, which will be more severe than what was discussed in the November 2018 Final Mitigated SEA for Rule 1135. A description and the basis for this conclusion is also included in this section.

Implementation of the proposed project is expected to result in potentially significant delayed NOx emission reductions due to: 1) removing the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delaying the compliance dates for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); and 3) delaying the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years). Eventually, PAR 1135 will reduce the NOx mass emission limit from 13 tpy to 6 tpy on and after January 1, 2035, with an up to threesix-year extension option to achieve 6 tpy by January 1, 20382041. If any extension is granted for the 13 tpyany NOx emission limits as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time and corresponding impacts will be prolonged. Potentially significant exceedances of the air quality significance thresholds for the project-specific changes in the 24-hour average ambient air quality standards for concentrations of PM2.5 and PM10 are also expected during the operation of electricity generating facility located on Santa Catalina Island when meeting the proposed 30 tpy NOx limit by January 1, 2028 (with a potential extension up to three years)-. However, once this facility makes modifications necessary to achieve the proposed 13 tpy NOx limit by January 1, 2030 (with a potential extension up to three-six years), the project-specific changes in the 24-hour average ambient air quality concentrations of PM2.5 and PM10 will no longer exceed the South Coast AQMD's air quality significance thresholds of significance for these pollutants (i.e., 2.5  $\mu$ g/m<sup>3</sup>, and 2.5  $\mu$ g/m<sup>3</sup>, respectively). Moreover, because the facility intends to replace the existing diesel engines with Tier 4 Final diesel engines, potentially significant operational cancer risk impacts are expected to occur for the 45 tpy, 30 tpy and 13 tpy NOx limits by January 1, 2027 (with a potential extension up to three years), January 1, 2028 (with a potential extension up to three years), and January 1, 2030 (with a potential extension up to three six years), respectively. However, once this facility makes modifications necessary to achieve the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to three six years), the operational cancer risk will no longer exceed the South Coast AQMD's thresholds of significance (i.e., 10 in a million).

As such, if PAR 1135 is implemented, significant and unavoidable adverse environmental impacts to the air quality during operation are expected to occur.

## **Other Environmental Impacts Found Not to be Significant**

CEQA requires the SEA to identify the environmental topic areas that were analyzed and concluded to have no impacts or less than significant impacts if the proposed project is implemented. For the effects of a project that were determined not to be significant, CEQA Guidelines Section 15128 requires the analysis to contain a statement briefly indicating the reasons that various effects of a project were determined not to have significant impacts and were therefore not discussed in detail.

As explained earlier, the November 2018 Final Mitigated SEA for Rule 1135 concluded that all of the environmental topic areas would have either less than significant impacts (with or without mitigation) or no impacts. For all environmental topics, except air quality and GHG emissions which is discussed and further analyzed in Section 4.1 of this chapter, this subchapter of the SEA identifies and summarizes these previously analyzed environmental topic areas and assesses whether the conclusions for these environmental topic areas would need to be revised if PAR 1135 is implemented. Also, since two new environmental topic areas, tribal cultural resources and wildfire, were added to the CEQA Guidelines after the November 2018 Final Mitigated SEA for Rule 1135 was certified, this section analyzes whether the PAR 1135 would contribute to any impacts on tribal cultural resources and wildfires.

As such, if PAR 1135 is implemented, the conclusions of no impact or less than significant impact for all of the environmental topic areas, except for air quality during operation as analyzed in the Chapter 4, will remain unchanged.

## **Other CEQA Topics**

CEQA documents are also required to consider and discuss the potential for growth-inducing impacts [CEQA Guidelines Section 15126(d)] and to explain and make findings about the project's relationship between short-term and long-term environmental goals. [CEQA Guidelines Section 15065(a)(2)]. Additional analysis in Chapter 4 confirms that PAR 1135 would not result in irreversible environmental changes or the irretrievable commitment of resources, foster economic or population growth, or the construction of additional housing. Further, implementation of the PAR 1135 is not expected to achieve short-term goals to the disadvantage of long-term environmental goals.

## Summary Chapter 5 - Alternatives

Since significant air quality impacts during operation are associated with PAR 1135, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss alternatives to the proposed project. The following alternatives to the proposed project are identified and summarized in Table 1-3: Alternative A – No Project, Alternative B – More Stringent Proposed Project, Alternative D – No ZE Equipment.

Pursuant to the requirements in CEQA Guidelines Section 15126.6(b) to mitigate or avoid the significant effects that a project may have on the environment, Table 1-4 provides a comparison of individual requirements that comprise the proposed project and that have potentially significant adverse impacts, to each of the project alternatives. Aside from operational air quality impacts, no other potentially significant adverse impacts were identified for the proposed project or any of the project alternatives. The proposed project provides the best balance in achieving the project objectives while minimizing the significant adverse environmental impacts to operational air quality. Therefore, the proposed project is preferred over the project alternatives.

Rule Elements	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Annual NOx Emission Limits	45 tpy by 1/1/2027 30 tpy by 1/1/2028 13 tpy by 1/1/2030 6 tpy by 1/1/2035	50 tpy by 1/1/2024 45 tpy by 1/1/2025 13 tpy by 1/1/2026	45 tpy by 1/1/2027 30 tpy by 1/1/2028 13 tpy by 1/1/2030 1.8 tpy by 1/1/2035	30 tpy by 1/1/2029 20 tpy by 1/1/2031 13 tpy by 1/1/2035	45 tpy by 1/1/2027 30 tpy by 1/1/2028 13 tpy by 1/1/2030
Potential NOx Emission Reductions	65.3 tpy by 1/1/2035 (with a potential extension up to <del>three</del> <u>six</u> years)	58.3 tpy by 1/1/2026 (with potential extension up to three years)	69.5 tpy by 1/1/2035 (with a potential extension up to <del>three</del> <u>six</u> years)	58.3 by 1/1/2035 (with a potential extension up to <del>three six</del> years)	58.3 tpy by 1/1/2030 (with a potential extension up to <del>three six</del> years)
Prohibition Deadline to Install New Diesel Internal Combustion Engines	1/1/2028 (with a potential of six additional months after any time extension is provided)	1/1/2024	Same as Proposed Project	1/1/2029 (with a potential of six additional months after any time extension is provided)	Same as Proposed Project
Prohibition Deadline to Install Equipment that Does Not Meet the definition of NZE or ZE Electric Generating Unit	1/1/2028 (with a potential of six additional months after any time extension is provided)	N/A	Same as Proposed Project	1/1/2029 (with a potential of six additional months after any time extension is provided)	Same as Proposed Project
Deadline to Install NZE and/or ZE Electric Generating Units With a Cumulative Rating ≥ 1.8 MW	1/1/2030 (with a potential <u>of six</u> <u>additional months after</u> <u>any time</u> extension <del>up to</del> three years <u>is provided</u> )	N/A	Same as Proposed Project	1/1/2035 (with a potential <u>of six</u> <u>additional months after</u> <u>any time</u> extension <del>up to</del> three <u>years</u> is provided)	Same as Proposed Project
Deadline to Remove All Prime Power Diesel Internal Combustion Engines With an Installation Date Earlier than Date of Adoption From Service	1/1/2030 (with a potential of six additional months after any time extension is provided)	N/A	Same as Proposed Project	1/1/2035 (with a potential of six additional months after any time extension is provided)	Same as Proposed Project

 Table 1-3

 Summary of the Proposed Project (PAR 1135) and Alternatives

Rule Elements	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Time Extension Provision for Meeting the Annual NOx Emission Limits	An option for a three- year extension to meet 45 tpy and 30 tpy by 1/1/2030, and 1/1/2031, respectively An option for a threesix- year extension to meet 13 tpy by 1/1/ <del>2033</del> 2036 Up to threesix-year extension option to meet 6 tpy by 1/1/ <del>2038</del> 2041	An option for a three- year extension to meet 13 tpy by 1/1/2029	An option for a three- year extension to meet 45 tpy and 30 tpy by 1/1/2030, and 1/1/2031, respectively An option for a three <u>six</u> - year extension to meet 13 tpy by 1/1/ <del>2033</del> 2036 Up to three <u>six</u> -year extension option to meet 1.8 tpy by 1/1/ <del>2038</del> 2041	An option for a three- year extension to meet 30 tpy and 20 tpy by 1/1/2032, and 1/1/2034, respectively An option for a three <u>six</u> - year extension to meet 13 tpy by 1/1/ <del>2038</del> 2041	An option for a three- year extension to meet 45 tpy and 30 tpy by 1/1/2030, and 1/1/2031, respectively An option for a three <u>six</u> - year extension to meet 13 tpy by 1/1/ <del>2033</del> 2036

Table 1-3 (concluded)Summary of the Proposed Project (PAR 1135) and Alternatives

Table 1-4
Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Construction Criteria Pollutants	<ul> <li>PAR 1135 only impacts one electricity generating facility located on Santa Catalina Island.</li> <li>Compliance with the proposed project may be achieved through replacing three existing diesel engines with three new Tier 4 Final diesel engines, replacing existing microturbines with five linear generator and three fuel cells, and installing solar powered batteries and photovoltaic (PV) cells.*</li> <li>Less than significant impacts in peak daily emissions for construction:</li> <li>VOC: 9.5 lbs/day</li> <li>NOx: 68.0 lbs/day</li> <li>CO: 52.5 lbs/day</li> <li>SOx: 0.1 lbs/day</li> <li>PM10: 5.0 lbs/day</li> <li>PM2.5: 3.9 lbs/day</li> </ul>	<ul> <li>Under this alternative, the electricity generating facility located on Santa Catalina Island would be required to meet 13 tpy NOx limit by 1/1/2026 (with potential extension up to three years). However, no new diesel engine installations are allowed after 1/1/2024, so this facility would need to find non-diesel technology in order to satisfy the annual NOx limit.</li> <li>The November 2018 Final Mitigated SEA for Rule 1135 originally analyzed environmental impacts associated with compliance activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island) and concluded less than significant impacts in peak daily construction emissions for all the affected facilities.</li> </ul>	Compared to PAR 1135, more NZE units are expected to be installed under this alternative. Because replacing three existing diesel engines with three new Tier 4 Final diesel engines, replacing existing microturbines with NZE units, and installing ZE technologies are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative B would result in similar peak daily construction emissions to those of the proposed project. •Less than Significant Impacts in peak daily emissions for construction: Same as Proposed Project	Compared to PAR 1135, compliance with Alternative C is not expected to require installation of any ZE technologies. Because replacing three existing diesel engines with three new Tier 4 Final diesel engines, and replacing existing microturbines with NZE units are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative C would result in similar peak daily construction emissions to those of the proposed project. •Less than Significant Impacts in peak daily emissions for construction: Same as Proposed Project	Compared to PAR 1135, compliance with Alternative D is not expected to require installation of any ZE technologies. Because replacing three existing diesel engines with three new Tier 4 Final diesel engines, and replacing existing microturbines with NZE units are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative D would result in similar peak daily construction emissions to those of the proposed project. •Less than significant impacts in peak daily emissions for construction: Same as Proposed Project

\*The combination of equipment replacements is considered worst-case for the purpose of determining potential peak impacts. However, representatives from the electricity generating facility located on Santa Catalina Island indicated that they are also considering other combinations of equipment replacements such as installing NZE propane engines instead of the linear generators and fuel cells but this combination would not represent a worst-case scenario and would be expected to have fewer impacts.

Table 1-4 (continued)
<b>Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives</b>

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Operation Criteria Pollutants	<ul> <li>Potentially Significant Impacts due to delayed NOx emission reductions at the electricity generating facility located on Santa Catalina Island as follows:</li> <li>116.71 lbs/day from 1/1/2024 to 1/1/2025</li> <li>144.11 lbs/day from 1/1/2025 to 1/1/2026</li> <li>319.45 lbs/day from 1/1/2026 to 1/1/2027 (with a potential extension up to three years)</li> <li>175.34 lbs/day from 1/1/2027 (with a potential extension up to three years) to 1/1/2028 (with a potential extension up to three years)</li> <li>93.15 lbs/day from 1/1/2028(with a potential extension up to three years) to 1/1/2030 (with a potential extension up to three years)</li> </ul>	•The November 2018 Final Mitigated SEA for Rule 1135 originally analyzed environmental impacts associated with compliance activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island) and concluded <b>less than significant</b> <b>impacts</b> in peak daily operational emissions for all the affected facilities.	<b>Potentially Significant Impacts:</b> Same as Proposed Project	PotentiallySignificantImpactsdue to delayedNOx emission reductionsattheelectricitygeneratingfacilitylocated on Santa CatalinaIsland as follows:116.71lbs/dayfrom1/1/2024 to 1/1/2025144.11lbs/day1/1/2025 to 1/1/2026319.45lbs/dayfrom1/1/2026 to1/1/2029(with a potentialextension up to threeyears)93.15lbs/day93.15lbs/dayfrom1/1/2029(with a potentialextension up to threeyears)38.36lbs/day38.36lbs/dayfrom1/1/2031(with a potentialextension up to threeyears)38.36up to threeyears)to1/1/2035(with a potentialextension up to threeyears)to1/1/2035(with a potentialextension up to threeyears)to1/1/2035(with a potentialextension up to threeyears)toup to threeyears)toup to threeyears)toup to threeyears)toup to threeyears)totototo <tr< td=""><td><b>Potentially Significant</b> <b>Impacts:</b> Same as Proposed Project</td></tr<>	<b>Potentially Significant</b> <b>Impacts:</b> Same as Proposed Project

# Table 1-4 (continued) Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
GHGs	<ul> <li>Less Than Significant Impacts:</li> <li>Implementation of PAR 1135 may result in the generation of 4.33 amortized MT/yr of CO2e emissions during construction and 1099.57 MT/yr of CO2e emissions during operation.</li> <li>The maximum annual operational GHG emissions at Facility 2 come from the following activities to meet 45 tpy NOx limit: 1) increased annual barge trips for fuel delivery to Santa Catalina; and 2) incremental increases in annual operational GHG emissions from power producing units.</li> </ul>	•The November 2018 Final Mitigated SEA for Rule 1135 originally estimated 36.35 MT/year of GHGs due to construction and operation activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island) and thus, concluded <b>less than</b> <b>significant GHG</b> <b>impacts</b> .	<ul> <li>Less Than Significant Impacts:</li> <li>Compared to PAR 1135, the construction activities under Alternative B would occur over a longer period of time due to replacement of existing microturbines with more NZE units, thus resulting in slightly higher GHG emissions during construction.</li> <li>Since Alternative B would have the same requirement as PAR 1135 to meet 45 tpy NOx limits, no changes to the maximum annual operational GHG emissions are expected under this alternative compared to PAR 1135.</li> </ul>	<ul> <li>Less Than Significant Impacts:</li> <li>Compared to PAR 1135, the construction activities under Alternative C would occur over a shorter period of time due to no expected ZE installation, thus resulting in lower GHG emissions during construction.</li> <li>Since Alternative C would remove the requirement to meet the 45 tpy NOx limit, lower operational GHG emissions are expected under this alternative compared to PAR 1135.</li> </ul>	<ul> <li>Less Than Significant Impacts:</li> <li>Compared to PAR 1135, the construction activities under Alternative D would occur over a shorter period of time due to no expected ZE installation, thus resulting in lower GHG emissions during construction.</li> <li>Since Alternative D would have the same requirement as PAR 1135 to meet 45 tpy NOx limit, no changes to maximum annual operational GHG emissions are expected under this alternative compared to PAR 1135.</li> </ul>

# Table 1-4 (continued) Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Construction Health Risk Impacts and Odor Nuisance	<ul> <li>Less Than Significant Health Risk and Odor Nuisance Impacts:</li> <li>Sources of health risk are diesel particulate matter from construction activities. However, since the on- and offroad diesel equipment that may be used at PAR 1135 affected facilities are expected to occur over a short-term period during construction, a HRA was not conducted. While the entire construction period, expected to span several years (from the adoption of PAR 1135 until 2035), will include sequential phases such as replacing three diesel engines with three new Tier 4 Final engines, upgrading existing microturbines with NZE power-producing engines, and installing ZE technologies, each phase will occur with several months of gap before the next upcoming phase.</li> <li>Moreover, the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction period. Thus, the quantity of pollutants that may be generated during construction from implementing PAR 1135 would not be considered substantial, irrespective of whether sensitive receptors are located near the affected facilities.</li> </ul>	•The November 2018 Final Mitigated SEA for Rule 1135 declared <b>less than significant</b> <b>impacts</b> for health risk and odor nuisance associated with construction activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island).	Less Than Significant Health Risk and Odor Nuisance Impacts: Same as proposed project	Less Than Significant Health Risk and Odor Nuisance Impacts: Same as proposed project	Less Than Significant Health Risk and Odor Nuisance Impacts: Same as proposed project

# Table 1-4 (concluded) Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Operation Health Risk Impacts	<ul> <li>Potentially Significant Impacts:</li> <li>Potentially maximally impacted (PMI) cancer risk of greater than 10 in a million during the operation of the electricity generating facility located on Santa Catalina Island to meet 45 tpy, 30 tpy, and 13 tpy NOx limits by 1/1/2027 (with a potential extension up to three years), 1/1/2028 (with a potential extension up to three years), and 1/1/2030 (with a potential extension up to three six years), respectively.</li> <li>Once the electricity generating facility located on Santa Catalina Island attains the 6 tpy NOx limit by 1/1/2035 (with a potential extension up to three-six years), health risk impacts would be less than significant.</li> </ul>	• The November 2018 Final Mitigated SEA for Rule 1135 estimated <b>less</b> <b>than significant</b> <b>impacts</b> for operational health risk at six affected facilities (including the electricity generating facility located on Santa Catalina Island).	<ul> <li>The overall conclusions for potentially significant health risk impacts are the same as the proposed project.</li> <li>Once the electricity generating facility located on Santa Catalina Island attains the 1.8 tpy limit (instead of 6 tpy in PAR 1135) by 1/1/2035 (with a potential extension up to three six years), health risk impacts would be less than significant and also much lower compared to the proposed project.</li> </ul>	•The overall conclusions for potentially significant health risk impacts are the same as the proposed project. However, under this alternative, operational health risk impacts would remain significant.	•The overall conclusions for potentially significant health risk impacts are the same as the proposed project. However, under this alternative, operational health risk impacts would remain significant.

## **Summary Chapter 6 - References**

This chapter contains a list of the references, and the organizations and persons consulted for the preparation of this SEA.

## Summary Chapter 7 - Acronyms

This chapter contains a list of the acronyms that were used throughout the SEA and the corresponding definitions.

## Appendix A

This appendix contains the latest version of PAR 1135.

## Appendix B: CalEEMod® Files

This appendix contains the CalEEMod Files for construction activities associated with removing existing diesel engines or microturbines, and installing linear generators to reduce annual NOx emissions from the electric generating facility located on Santa Catalina Island to BARCT levels.

## **Appendix C: CEQA Impact Evaluations**

This appendix contains a summary of total construction emissions, a summary of total operational impacts, and construction impacts per affected facility by PAR 1135. In addition, the energy demand impacts are included in this Appendix.

## Appendix D: Air Quality Impact Analysis and Health Risk Assessment

This appendix provides a comprehensive overview of the methodology used in conducting Air Quality Impact Analysis (AQIA) and Health Risk Assessment (HRA) for PAR 1135.

## Appendix E: Comment Letters Received on the Draft SEA and Responses to Comments

This appendix contains the comment letters received on the Draft SEA. Comment letters were bracketed, and a response was provided for each bracketed section within each comment letter.

# **CHAPTER 2**

# **PROJECT DESCRIPTION**

**Project Location** 

**Project Background** 

**Project Objectives** 

**Project Description** 

**Summary of Affected Facility** 

**Technology Overview** 

# 2.1 **PROJECT LOCATION**

PAR 1135 applies to electric generating units at electricity generating facilities located in the South Coast AQMD jurisdiction, which includes the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin. The South Coast Air Basin, a subarea of South Coast AQMD's jurisdiction, is bounded by the Pacific Ocean to the west, the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east, and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the Salton Sea Air Basin is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal non-attainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the Salton Sea Air Basin that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (see Figure 2-1). However, only the electricity generating facility located on Santa Catalina Island within Los Angeles County, will be expected to undergo physical modifications necessary to achieve the NOx emission limits contained in PAR 1135.

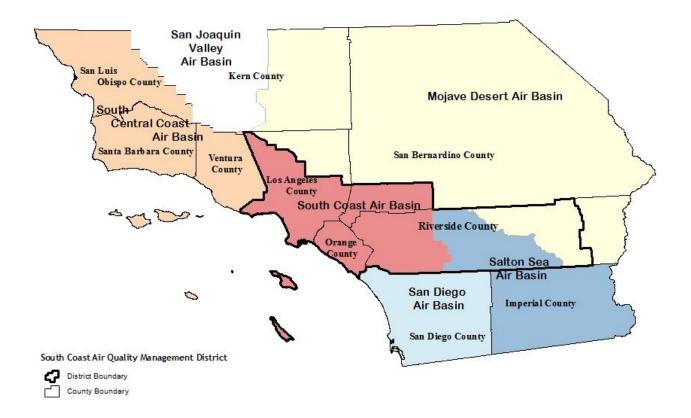


Figure 2-1 Southern California Air Basins and South Coast AQMD's Jurisdiction

# 2.2 PROJECT BACKGROUND

Rule 1135 is an industry-specific rule which applies to electric generating units (i.e., boilers, turbines, engines, etc.) that are at investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 MW of electrical power for distribution in the state or local electrical grid system. Rule 1135, however, does not include facilities subject to Rule 1109.1, Rule 1150.3, or Rule 1179.1.

On November 2, 2018, amendments to Rule 1135 were adopted which established BARCT NOx limits necessary for transitioning electric generating facilities subject to the RECLAIM to a command-and-control regulatory structure and to implement Control Measure CMB-05 of the 2016 AQMP and AB 617. The 2018 amendments expanded Rule 1135 applicability to all electric generating units at RECLAIM NOx, former RECLAIM NOx, and non-RECLAIM NOx electricity generating facilities. The amendments updated emission limits to reflect current BARCT levels at that time and to provide implementation timeframes for boilers, gas turbines, and internal combustion engines located on Santa Catalina Island. Additionally, the 2018 amendments to Rule 1135 established provisions for monitoring, reporting, and recordkeeping, and exemptions from specific provisions. At the time, six facilities were identified as potentially needing modifications in order to achieve the emission limits in Rule 1135. Of these affected facilities, all but one facility, the electricity generating facility located on Santa Catalina Island, has either made modifications to achieve the emission limits in Rule 1135 or is no longer subject to Rule 1135 requirements.

More recently, Rule 1135 was amended on January 7, 2022 to: 1) remove ammonia limits; 2) update provisions for CEMS; 3) include a reference Rule 429.2 to clarify startup and shutdown requirements; and 4) revise requirements for diesel internal combustion engines on Santa Catalina Island. At the time, stakeholders commented that an updated BARCT assessment was warranted due to the change in averaging time and that the BARCT assessment should emphasize ZE technologies. The adopted resolution directed South Coast AQMD staff to re-initiate rule development in 2022 which included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives as well as ZE and NZE technologies.

In December 2022, the South Coast AQMD adopted the 2022 AQMP which included a series of control measures to achieve the 2015 8-hour ozone NAAQS. In particular, Control Measure L-CMB-06 focused on large combustion sources and assessing low NOx and ZE technologies for power generation, and specifically mentioned replacing existing diesel internal combustion engines with lower-emitting technologies.

Additional amendments to Rule 1135 are currently proposed to address stakeholder comments raised during the January 2022 amendments and partially implement Control Measure L-CMB-06 of the 2022 AQMP. For the electricity generating facility located on Santa Catalina Island which operates six diesel internal combustion engines and 23 microturbines to generate power, staff conducted a BARCT assessment and learned-confirmed that over 90% of the power generated is from diesel internal combustion engines. These six diesel engines were last modified in 2003 to install SCR technology. No other modifications have been made to address the 2018 amendments to Rule 1135. As such, PAR 1135 has been crafted to establish NOx emission limits for electric generating units located on Santa Catalina Island. PAR 1135 also includes monitoring, reporting, and recordkeeping requirements for electric generating units located on Santa Catalina Island.

Rule 1135 was amended on January 7, 2022 to remove ammonia limits, update provisions for Continuous Emission Monitoring Systems, reference South Coast AQMD Rule 429.2 – Startup and Shutdown Exemption Provisions for Oxides of Nitrogen from Electricity Generating Facilities for startup and shutdown requirements, and revise requirements for diesel internal combustion engines on Santa Catalina Island. Staff was directed to re-initiate rule development to include a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies.

# 2.3 **PROJECT OBJECTIVES**

The main objectives of the proposed project are to: 1) revise the BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies; and 2) reduce the final NOx mass emissions limit for the electricity generating facility located on Santa Catalina Island.

## 2.4 **PROJECT DESCRIPTION**

PAR 1135 has been developed to perform a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies. PAR 1135 will establish NOx emission limits for the electricity generating facility located on Santa Catalina Island. PAR 1135 includes monitoring, reporting, and recordkeeping requirements for electric generating units located on Santa Catalina Island.

The proposed BARCT limit is estimated to reduce NOx emissions at the electricity generation facility located on Santa Catalina Island by 65.3 tpy, or 0.18 ton per day. PAR 1135 will partially implement Control Measure L-CMB-06 of the 2022 AQMP.

## Purpose – subdivision (a) and Applicability – subdivision (b)

There are no proposed changes to the purpose and applicability.

## <u>Definitions – subdivision (c)</u>

PAR 1135 adds and modifies definitions to provide clarification New or modified definitions added to PAR 1135 include:

• ANNUAL NOx MASS EMISSIONS means actual emissions of NOx produced from all electric generating units at an electricity generating facility between January 1st through December 31<sup>st</sup>.

This proposed definition provides clarity that NOx mass emission limits are calculated on a fixed basis per calendar year, rather than on a rolling basis.

• ELECTRIC GENERATING UNIT means a boiler that generates electric power, a gas turbine that generates electric power with the exception of cogeneration turbines, or equipment that generates electric power and is located on Santa Catalina Island. An electric generating unit does not include emergency internal combustion engines and portable engines registered under the California Air Resources Board Statewide Portable Equipment Registration Program (PERP). The definition was modified to broaden the definition of electric generating units located on Santa Catalina Island. The proposed definition includes all prime power electric generating equipment located on Santa Catalina Island.

• SANTA CATALINA ISLAND NEAR-ZERO EMISSION (NZE) ELECTRIC GENERATING UNIT means any electric generating unit located on Santa Catalina Island that produces NOx emissions greater than 0.01 pounds per Megawatt-hour (lb/MW- hr) but less than or equal to 0.07 lb/MW-hr as demonstrated by a South Coast AQMD permit condition or other method determined to be equivalent by the Executive Officer.

This proposed definition provides clarity on the rate of emissions considered to be nearzero emission on Santa Catalina Island. Through the permitting process, staff will determine if equipment meets the emission requirements from a manufacturer guarantee, source test, or other approved method.

• SANTA CATALINA ISLAND ZERO-EMISSION (ZE) ELECTRIC GENERATING UNIT means any electric generating unit located on Santa Catalina Island that produces NOx emissions less than 0.01 lb/MW-hr as demonstrated by a South Coast AQMD permit condition or other method determined to be equivalent by the Executive Officer.

This proposed definition provides clarity on the rate of emissions considered to be zero- emission on Santa Catalina Island. The emissions requirement of less than 0.01 lb/MW-hr NOx for Santa Catalina Island ZE electric generating units is intended to address any potential negligible emissions. However, Santa Catalina Island ZE electric generating units should have emissions of 0 lb/MW-hr NOx, as any equipment that may cause the issuance of air contaminants or may control air contaminants is required to have a permit, except for equipment specified in Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II.

## Emission Limits – subdivision (d)

Current South Coast AQMD Rule 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135) subparagraph (d)(2)(A) was deleted to remove the first interim annual NOx mass emission limit of 50 tons of NOx by January 1, 2024, as the compliance deadline has passed. It is expected that the electricity generating facility located on Santa Catalina Island can meet the first interim limit of 45 tpy of NOx by January 1, 2027 by replacing two older diesel engines with Tier 4 Final diesel engines.

Subparagraph (d)(2)(A) prohibits the electricity generating facility located on Santa Catalina Island from installing more than three new diesel internal combustion engines. Furthermore, new diesel internal combustion engines installed cannot exceed a maximum cumulative rating of 5.5 MW. The maximum cumulative rating is the sum of the name plate rating of each new diesel internal combustion engine. The new Tier 4 Final diesel engines proposed to be installed are rated at 1.825 Megawatts (MW) each. Staff rounded the maximum cumulative rating for the proposed three Tier 4 final diesel engines to 5.5 MW for simplicity.

Subparagraph (d)(2)(B) extends the deadline prohibiting the installation of any new diesel internal combustion engine from January 1, 2024 to January 1, 2028 or six months after any applicable <u>extensions</u>. Installation of any new diesel internal combustion must be completed by January 1, 2028. Staff updated this provision due to the failure of the cleanest existing diesel engine's new catalyst block to meet particulate matter emission standards as specified by South Coast AQMD

Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines<sup>13</sup>. It is expected that the electricity generating facility located on Santa Catalina Island can meet the second interim limit of 30 tpy of NOx by January 1, 2028 by replacing a third older diesel engine with Tier 4 Final diesel engine. Due to the existing capacities of fuel storage and limitations to expand fuel storage outside of existing facility footprint, the extension of the prohibition deadline will provide reliability and redundancy in the event barge trips for propane fuel deliveries cannot occur.

Subparagraph (d)(2)(C) will prohibit the installation of any equipment that does not meet the definition of a "Santa Catalina Island Near-Zero-Emission (NZE) Electric Generating Unit" or a "Santa Catalina Island Zero-Emission (ZE) Electric Generating Unit" after January 1, 2028 or six months after any applicable extensions. This provision was added to require the installation of cleaner power generation technologies that were demonstrated to be technologically feasible and cost-effective during the BARCT assessment.

Subparagraph (d)(2)(D) was also added to ensure that a minimum amount of Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units are installed. Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units will need to provide approximately 75% of the power at the electricity generating facility located on Santa Catalina Island to meet the final proposed NOx limit of 6 tpy. Throughout the rule development process, representatives of the electricity generating facility located on Santa Catalina Island expressed-indicated that three Tier 4 final diesel engines are necessary to: 1) ensure that grid stability is maintained under all conditions; 2) provide sufficient power production capacity during peak electrical demand periods; and 3) provide redundancy during planned maintenance and unplanned outages. Similarly, backup Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units are necessary to provide sufficient power during planned maintenance and unplanned outages to meet the final proposed NOx limit as well as minimize the use of diesel engines. Subparagraph (d)(2)(D) requires Santa Catalina Island NZE electric generating units and/or Santa Catalina Island ZE electric generating units with a minimum cumulative rating of 1.8 MW to be installed by January 1, 2030 or six months after any applicable extensions. The minimum cumulative rating is the sum of the name plate rating of each Santa Catalina Island NZE electric generating unit and Santa Catalina Island ZE electric generating unit installed, excluding the highest rated Santa Catalina Island NZE electric generating unit and/or Santa Catalina Island ZE electric generating unit, solar photovoltaic cells, and battery storage. Battery storage does not generate electricity and does not meet the definition of an electric generating unit; however, staff specified that battery storage would be excluded for additional clarity. Compliance with subparagraph (d)(2)(D) can be achieved in many ways. For example, installation of three propane engines rated 1.5 MW each would comply with subparagraph (d)(2)(D) because the cumulative rating when subtracting the highest rated Santa Catalina Island NZE electric generating unit is 3.0 MW<sup>14</sup>. However, installation of two propane engines rated 1.81.5 MW each would not comply with subparagraph (d)(2)(D) because the cumulative rating when subtracting the highest rated Santa Catalina Island NZE electric generating unit is 1.5 MW.

<sup>&</sup>lt;sup>13</sup> South Coast AQMD, Rule 1470, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf</u>

<sup>&</sup>lt;sup>14</sup> Staff assumed that propane engines can meet the proposed Santa Catalina Island NZE Electric Generating Unit standard of 0.07 lb/MW-hr NOx for the compliance examples contemplated in subparagraph (d)(2)(D).

Subparagraph (d)(2)(E) will establish progressively more stringent NOx mass emission limits for the electricity generating facility located on Santa Catalina Island. The final proposed NOx emission limit is 6 tpy. The NOx mass emission limits include emissions from startups, shutdowns, and missing data substitutions.

Subparagraph (d)(2)(F) requires all prime power diesel internal combustion engines for which installation was completed earlier than *[Date of Adoption]* to be removed from service by January 1, 2030 or six months after any applicable extensions. Therefore, all six existing prime power diesel internal combustion engines will be required to be removed from service by January 1, 2030 or six months after any appliable extensions. Removing from service means physically removing the equipment from the facility or altering the equipment in such a way that it cannot be used without new construction activities. The January 1, 2030, compliance deadline in subparagraph (d)(2)(F) aligns with the implementation date of the 13 tpy NOx limit.

Paragraph (d)(3)(A) requires that by January 1, 2028, the owner or operator conduct a feasibility analysis to determine if the proposed emission limits in clause (d)(2)(E)(iii) can be met by the compliance date. The analysis should identify the electric generating units under consideration, the progress in procuring and installing the electric generating units, a description of how those units would achieve the emission limits, and, if applicable, the length of time of up to three years for an extension to the implementation date.

Subparagraph (d)(3)(B) establishes a requirement that a request for a time extension shall be made available for public review no less than 30 days prior to approval.

Subparagraph (d)(3)(C) provides the criteria for which the Executive Officer will evaluate any extension request for approval.

Similarly, subparagraphs (d)(3)(D) through (d)(3)(F) require that by January 1, 2033, the owner or operator conduct a feasibility analysis to determine if the proposed emission limits in clause (d)(2)(E)(iv) can be met by the compliance date. The same requirements for public review and approval criteria apply.

Subparagraph (d)(5)(A) updates the time extension provision for the electricity generating facility on Santa Catalina Island. PAR 1135 allows the electricity generating facility located on Santa Catalina Island to request up to two-four time extensions; one time extension for the 13 tpy NOx limit and one time extension for the 6 tpyeach of the proposed NOx limits. Each time extension can be approved for up to three years. If the request for the time extension is not submitted at least 365 days prior to the compliance deadlines specified in clauses (d)(2)(E)(iii) and (d)(2)(E)(iv), then the electricity generating facility located on Santa Catalina Island will not be eligible for the time extension.

Subparagraph (d)(5)(B) establishes a requirement that a request for a time extension shall be made available for public review no less than 30 days prior to approval.

Clause (d)(5)(C)(ii) was updated to specify that the extenuating circumstances that demonstrate the need for a time extension-are limited to unforeseen construction interruptions and/or supply chain disruptions.

## Monitoring, Recordkeeping, and Reporting Requirements – subdivision (e)

Paragraphs (e)(1) through (e)(3) clarify that Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 Megawatts (MW) and Santa Catalina Island ZE electric generating units do not require installation of continuous emission monitoring systems (CEMS), unless required by South Coast AQMD permit condition. South Coast AQMD permit conditions can be more stringent than South Coast AQMD rules.

Paragraph (e)(4) establishes a method to calculate NOx emissions from Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 MW located on Santa Catalina Island, as those units will not be required to install CEMS. The NOx emissions calculated from Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 MW are required to be added to the total annual NOx emissions from electricity generating units that have CEMS to demonstrate compliance with emission limits specified in paragraph (d)(2).

Paragraph (e)(5) requires records of all data used to calculate the annual NOx emissions from Santa Catalina Island NZE electric generating units rated less than or equal to 0.5 MW for compliance verification purposes. The data is required to be maintained onsite for a minimum of five years and be made available to the Executive Officer upon request.

Paragraph (e)(6) requires the installation of a non-resettable device to continuously record the megawatt-hours hours for each Santa Catalina Island NZE electric generating unit rated less than or equal to 0.5 MW.

## 2.5 SUMMARY OF AFFECTED FACILITY

The proposed amendments to Rule 1135 will impact one electricity generating facility located on Santa Catalina Island. The electricity generating facility on Santa Catalina Island currently operates six diesel internal combustion engines and 23 microturbines to generate power as well as one battery for energy storage. SCE has stated that the existing microturbines are at the end of their useful life and will require refurbishment to continue to provide 635,000 kilowatts (kW) of power each calendar year, as required per permit condition. Over 90% of the power generated at the electricity generating facility on Santa Catalina Island is from diesel internal combustion engines. The diesel internal combustion engines on Santa Catalina Island produce approximately 10 to 70 times more NOx than other electric generating units subject to Rule 1135. The electricity generating facility on Santa Catalina Island produces more than 10% of the NOx emissions from all electricity generating facilities in South Coast AQMD while providing less than 0.06% of the power<sup>15</sup> in South Coast AQMD jurisdiction. Table 2-1 contains the equipment affected by PAR 1135.

<sup>&</sup>lt;sup>15</sup> Based on the Final Staff Report for the 2018 amendments to Rule 1135 (9 MWh/15,904 MWh and 0.2 tpd/1.9 tpd).

Equipment Type	Rating (MW)	Construction Year	NOx Emissions <sup>16</sup>
Diesel Engine Unit 7	1	1958	97 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 8	1.5	1964	97 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 10	1.125	1968	140 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 12	1.5	1976	82 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 14	1.4	1985	103 ppmv (15% O <sub>2</sub> , dry)
Diesel Engine Unit 15	2.8	1995	51 ppmv (15% O <sub>2</sub> , dry)
Microturbines (23 units)	1.49	2011	0.07 lb/MW-hr

## Table 2-1: PAR 1135 Affected Equipment

## 2.6 TECHNOLOGY OVERVIEW

As part of the BARCT assessment, staff conducted a technology assessment to evaluate NOx pollution control technologies for electric generating units located on Santa Catalina Island. Staff reviewed scientific literature, vendor information, and strategies utilized in practice. The technologies are presented in the following discussion and the applicability for use with various electric generating units is noted.

## Fuel Cells

A fuel cell is a device capable of producing electrical energy from chemical reactions through the conversion of a fuel such as hydrogen or propane, and an oxidizing agent such as oxygen, into electricity. A fuel cell works similarly to a battery and is comprised of two electrodes, an anode and a cathode, surrounding an electrolyte membrane (Figure 2-2). A fuel such as hydrogen or propane is supplied to the anode and oxygen enters the cathode. The porous electrolyte membrane only allows positively charged protons to pass through to the cathode. Negatively charged electrons that cannot pass through the electrolyte membrane flow through an external circuit to generate an electric current. Oxygen, protons, and unused electrons combine in the catalytic cathode to produce water and heat as a byproduct of waste.

<sup>&</sup>lt;sup>16</sup> NOx emissions for diesel engines calculated by using the uncontrolled NOx emissions and control efficiency specified in Southern California Edison's Best Available Control Technology and Alternative Analysis for Pebbly Beach Generating Station (Version 00; Revised April 30, 2021) and NOx emissions for microturbines reflect the emission standard in the California Air Resources Board Distributed Generation Certification Regulation.

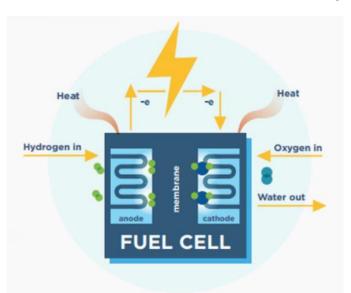


Figure 2-2: Typical Components of a Hydrogen Fuel Cell<sup>17</sup>

Fuel cells are two to three times more efficient than internal combustion engines, and provide the flexibility to operate utilizing a variety of fuels such as hydrogen, propane, and biogas. The products of a hydrogen fuel cell are electricity, water, and heat. Alternately, propane fuel cells are expected to produce less than 2.5 ppmv of NOx emissions.<sup>18</sup> Fuel cells can also be combined to form a fuel cell stack in series to yield a higher voltage or in parallel for a higher current and are complementary to other energy technologies such as batteries, solar panels, and wind turbines.

## Internal Combustion Engines

Internal combustion engines work by releasing energy through the combustion of a fuel and air mixture. Gasoline or diesel are most commonly used but other fuels such as natural gas, propane, or biodiesel may also be utilized. An internal combustion engine consists of two components working together, a fixed cylinder and a piston. Expanding combustion gases within the engine pushes the piston, which in turn rotates the crankshaft. This high-speed motion generates an electric current.

Non-road diesel internal combustion engines contribute considerably to air pollution. To improve air quality, the U.S. EPA developed Tier 4 emission standards for nonroad diesel internal combustion engines to reduce harmful emissions. Replacement with a U.S. EPA Tier 4 Final diesel engine is expected to produce less than 45 ppmv NOx. Replacement with a propane internal combustion engine is expected to produce less than <u>or equal to 11 ppmv NOx0.07 lb/MW-hr</u>.

## Linear Generators

A linear generator works to directly convert linear motion into electricity by compressing a mixture of fuel and air in a center reaction zone. The compression of fuel and air creates a chemical reaction that drives magnets through copper coils in a linear motion. Energy is created from the magnets

<sup>&</sup>lt;sup>17</sup> Fuel Cell & Hydrogen Energy Association, Fuel Cell Basics, <u>https://www.fchea.org/fuelcells</u>

<sup>&</sup>lt;sup>18</sup> Combined Heat and Power Partnership, Catalog of CHP Technologies, Section 6. Technology Characterization – Fuel Cells, <u>https://www.epa.gov/sites/default/files/2015-</u>

<sup>07/</sup>documents/catalog\_of\_chp\_technologies\_section\_6.\_technology\_characterization\_-\_fuel\_cells.pdf

attached to oscillators, which interact with the copper coils during linear motion to generate electricity (Figure 2-3).

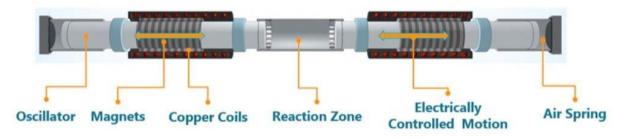


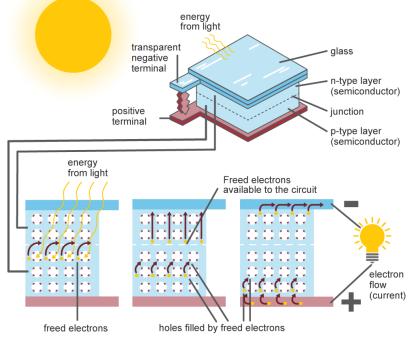
Figure 2-3: Components of a Linear Generator<sup>19</sup>

Linear generators maintain relatively low reaction temperatures which reduce NOx formation. Further, linear generators do not require add-on control technologies such as selective catalytic reduction to control NOx emissions and have lower start-up emissions since they are not dependent on a catalyst to reach a destruction temperature. In addition, linear generators utilize a parametric monitoring system to maintain proper combustion to meet energy demands. The parametric monitoring system works by monitoring air and fuel flow to ensure a proper air-to-fuel ratio is achieved, which also ensures emissions are under control. Lastly, linear generators provide the flexibility to operate utilizing various fuels including hydrogen and propane.

## Solar Photovoltaic Cells

Solar PV cells generate ZE electricity by absorbing sunlight and utilizing light energy to create an electrical current. Light consists of photons vibrating at a range of wavelengths, and the wavelengths can be captured by a solar PV cell. Solar PV cells are made of a semiconductor material, typically silicon, that is treated in a way that allows it to interact with photons from sunlight. Sunlight energy absorbed by solar PV cells causes electrons to flow through two layers of silicon to create an electric field (Figure 2-4). The electric field forces loosen electrons to flow through in one direction, generating an electric current. Metals plates on each sides of the solar PV cells are wired together and installed on top of a substrate such as metal or glass to create solar panels, which are then installed collectively as a group to form a solar power system.

<sup>&</sup>lt;sup>19</sup> Greentech Media, "Mainspring Energy Lands \$150M Deal to Deploy its Linear Generators with NextEra," <u>https://www.greentechmedia.com/articles/read/mainspring-energys-linear-generators-to-roll-out-through-150m-deal-with-nextera</u>.



Source: U.S. Energy Information Administration

Figure 2-4: Inside a Solar PV Cell<sup>20</sup>

Solar PV cells can supply power through different systems. Through an on-grid system, excess power is produced by solar panels fed to the local utility grid, which can supply power that solar panels are not producing (e.g. at night). Off-grid systems contain solar panels that charge batteries where electricity is drawn. A hybrid system consists of solar panels connected to the grid and a battery backup to store excess power.

## Tidal and Current Energy Harvesting Systems

Tidal and current energy harvesting systems are a renewable ZE technology that generates electricity from tidal streams and ocean currents (Figure 2-5). Tidal and current energy harvesting systems generate power by the wing utilizing the hydrodynamic lift force created by the underwater current and the turbine being pulled through the water at a water flow higher than the stream speed. The turbine shaft turns the generator which outputs electricity to the grid via a power cable.

<sup>20</sup> United States Energy Information Administration, Photovoltaics and Electricity, <u>https://www.eia.gov/energyexplained/solar/photovoltaics-and-</u> <u>electricity.php#:~:text=The% 20U.S.% 20Energy% 20Information% 20Administration% 20% 28EIA% 29% 20estimates% 20that,2</u> <u>020% 2C% 20up% 20from% 2011% 20billion% 20kWh% 20in% 202014</u>.

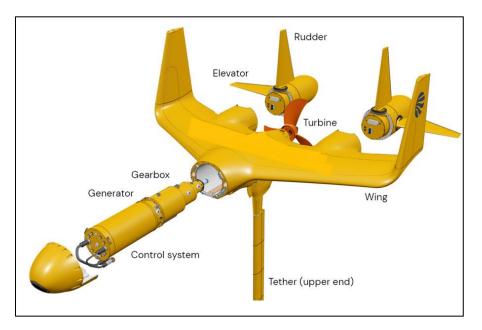


Figure 2-5: Tidal and Current Energy Harvesting System

Senate Bill (SB) 605 (Padilla, Chapter 405, Statutes of 2023) requires the California Energy Commission, in consultation with other state agencies, to evaluate the technological and economic feasibility of deploying wave and tidal energy<sup>21</sup>. Other requirements of SB 605 include identifying suitable sea space for wave and tidal energy projects and identifying monitoring strategies to evaluate impacts to marine and tidal ecosystems.

## Initial BARCT Emission Limit and Other Considerations

## Electricity Demand

The electricity generating facility on Santa Catalina Island historically produces approximately 29,000 MW-hr per year of power. The average hourly load is approximately 3.3 MW. In September 2022, the electricity generating facility located on Santa Catalina Island reached a new peak load of 6.3 MW during a heat wave. The historical annual power generation and new peak load were used to determine feasible repower scenarios to establish BARCT.

## Space Limitations

A significant challenge for installing ZE and/or NZE technologies at the electricity generating facility located on Santa Catalina Island is limited space (Figure 2-6). The estimated available onsite space for ZE and/or NZE technologies is less than 5,000 square feet. The electricity generating facility located on Santa Catalina Island also provides water and gas service, which limits the equipment that could be removed and replaced with ZE and/or NZE equipment on the existing facility footprint. The BARCT analysis assumed that three of the six existing diesel engines that will not be replaced with Tier 4 Final diesel engines and all existing microturbines could be removed to install ZE and/or NZE technologies for power generation (see areas marked in red in (Figure 2-6). Nonetheless, representatives from the electricity generating facility located

<sup>&</sup>lt;sup>21</sup> California SB 605, Padilla, Chapter 405 (2023), <u>https://legiscan.com/CA/text/SB605/id/2844364.</u>

on Santa Catalina Island indicated that they are considering installing some NZE technologies in other available areas within the PBGS footprint to meet the proposed BARCT limit.

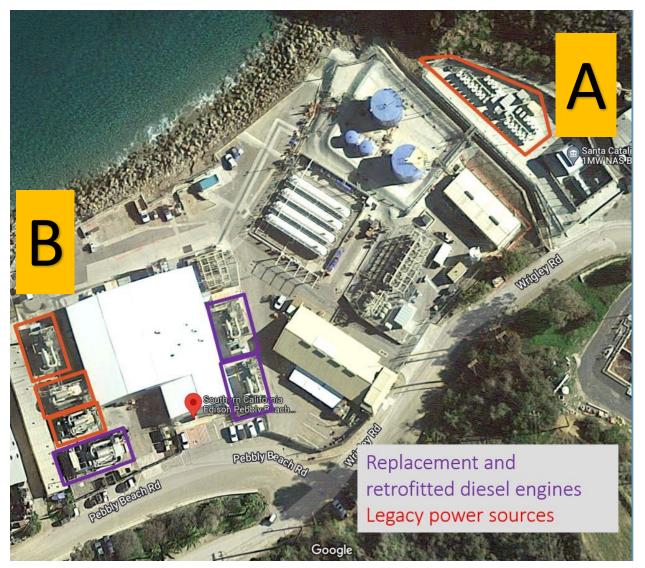


Figure 2-6: Land Availability at the Electricity Generating Facility Located on Santa Catalina Island

A – Microturbine platform B – Diesel internal combustion engines

The estimated number of ZE and NZE units that could fit in the existing facility footprint is listed in Table 2-2.<sup>22</sup> It does not account for potential ancillary equipment needed, except for linear generators located on the microturbine pad. <u>Representatives from t</u>The electricity generating facility located on Santa Catalina Island <u>has since stated have also indicated possible</u> plans to install NZE units at location B.

<sup>&</sup>lt;sup>22</sup> Staff's analysis assumed that ZE and/or NZE technologies were not stacked, however, some vendors stated that their technology has the capability of being stacked.

ZE or NZE Technology	Number of Units in Available Onsite Space	Electric Power Output (MW)
<b>Propane Linear Generators</b>	11	2.75
Hydrogen Linear Generators	11	2.75
Propane Fuel Cells	13	5.7
Hydrogen Fuel Cells	4	4

The possibility of land acquisition outside of the existing facility footprint to install ZE and/or NZE technologies was also considered. Additional land procurement or lease would be necessary for solar PV cells to provide a significant contribution of power generation to Santa Catalina Island. However, there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. The electricity generating facility has been in discussion with the Catalina Island Conservancy who owns the Middle Ranch property. Complications in the permitting process and land use plans may present substantial obstacles to either acquiring or leasing additional land outside of boundaries of this electric generating facility for the purpose of installing solar PV cells. The current land use plan restricts energy facilities from being established on most areas of Santa Catalina Island, including the Middle Ranch site. Modifications to the Santa Catalina Island land use plan would require revisions to existing land use regulations, which could take several years.

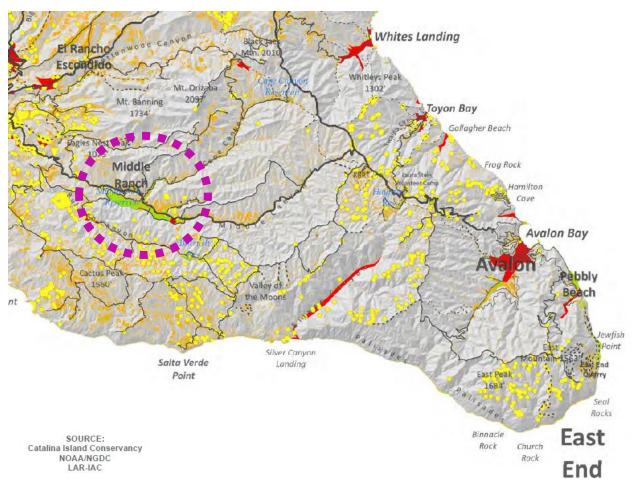


Figure 2-7: Middle Ranch Area of Santa Catalina Island<sup>23</sup>

## Fuel Storage

Santa Catalina Island does not have fueling infrastructure on the island; all fuel must be brought in by barges. All repower scenarios for the electricity generating facility located on Santa Catalina Island include three diesel internal combustion engines for redundancy because the site already has 30-days of diesel fuel storage. The repower scenarios assume at least 5% power generation (MW-hr per year) from diesel engines in the event that the barge is not running, and fuel cannot be delivered. Fuel deliveries from 2017 to 2021 to Santa Catalina Island were analyzed, and it was found that the longest time lapse between fuel deliveries was five days and that the barge did not run for a maximum of 14 days in a calendar year (approximately 4% of a calendar year). Therefore, it is conservatively assumed that at least 5% of power generation (MW-hr per year) comes from diesel engines. The BARCT analysis assumes that three of the existing diesel engines would be replaced with U.S. EPA Tier 4 Final diesel engines.

Constructing additional fuel storage beyond the existing 30-day supply for diesel and propane storage tanks is limited on the existing facility footprint. If ZE technologies fueled by hydrogen were to be utilized, the electricity generating facility located on Santa Catalina Island would most likely need to expand its existing footprint to accommodate ancillary fuel storage facilities. Potential land for additional fuel storage was identified at a location adjacent to the electricity

<sup>&</sup>lt;sup>23</sup> Catalina Island Conservancy, GIS Work for Large Solar Project on Island, Accessed July 21, 2022.

generating facility, but outside of the existing facility footprint. During the rule development process, it was determined that acquisition of the land could not be relied upon for the purpose of establishing a BARCT limit.

There are four 30,000-gallon propane storage tanks located at the electricity generating facility located on Santa Catalina Island. However, only three of the propane storage tanks are currently in service due to fire suppression requirements needed to bring the fourth propane storage tank online. Additional water storage for fire suppression is needed to operate the fourth propane storage tank.

SCE stated that a minimum fuel reserve of 25% storage tank capacity is required at all times.<sup>24</sup> The average capacity of the propane tanks is 67%, but the propane tanks can be filled up to a maximum aggregate capacity of 83%. There is a 2.9-day fuel reserve at average capacity.<sup>25</sup> Since the proposed BARCT limit incorporates 520% diesel engines and 30% ZE technology based on annual power generation (MW-hr per year), existing propane fuel storage was determined to be sufficient.

## Initial BARCT Emission Limit

Table 2-3 provides projections of fuel usage and associated fuel tanks delivered based on repower scenarios for the electricity generating facility located on Santa Catalina Island. A maximum capacity of 9,100-gallons (gal) of propane, 1,250-kilograms (kg), or 7,450 gallons of diesel was assumed per fuel tank<sup>26</sup>. The electricity generating facility located on Santa Catalina Island utilizes approximately two million gallons of diesel and 190,000 gallons of propane annually for power generation, which equates to approximately 300 fuel tanks. The electric generating facility located on Santa Catalina Island also utilizes approximately 650,000 gallons of propane annually for utility service, which equates to approximately 70 fuel tanks.

	Estimated Annual Propane or Hydrogen	Estimated Annual Diesel (gallons)	Approximate Annual Number of Fuel Tanks Barged
Current	190,000 gal	2,030,000	300
<u>50% NZE</u>	<u>900,000 gal</u>	<u>1,015,000</u>	<u>276</u>
65% NZE*	1,859,000 gal	104,000	220
95% NZE	2,861,000 gal	104,000	330
65% ZE*	1,395,000 kg	104,000	1,130
95% ZE	2,146,000 kg	104,000	1,730

Table 2-3: Hydrogen and Propane Fuel Tanks Estimated for Various Repower	Scenarios
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\*Assumes 30% solar or other non-fuel based zero-emission technology

A 95% ZE scenario was determined to be technologically infeasible due to the number of fuel tanks that would be required for hydrogen-fueled ZE technologies. South Coast AQMD staff is

<sup>&</sup>lt;sup>24</sup> Between 2019 to 2023, there were seven days in which the volume of propane stored in the tank was less than 25%.

<sup>&</sup>lt;sup>25</sup> The days of propane storage were calculated based on three propane storage tanks, a 10-day utility fuel reserve, a 25% fuel reserve minimum, and fuel needed for 65% NZE technology for the proposed BARCT limit.

<sup>&</sup>lt;sup>26</sup> Fuel tank capacity for barge deliveries is included in the Southern California Edison Pebbly Beach Alternatives Study, Revised Final Action Plan (July 14, 2022): <u>http://www.aqmd.gov/docs/default-source/Agendas/hearing-board/case-documents/exh-d---pbgs-action-plan-(revised-7-14-22).pdf</u>.

only aware of one barge that currently delivers fuel to Santa Catalina Island and this barge makes deliveries Monday through Friday. Based on historical fuel usage at the electricity generating facility on Santa Catalina Island, it is possible to deliver at least two tanks of fuel each day when the barge is operating and the maximum amount of fuel that could be delivered to the electricity generating facility on Santa Catalina Island is two fuel tanks for 260 days out of the year. Therefore, repower scenarios that required over 448 fuel tanks annually were considered to be technologically infeasible.<sup>27</sup> Approximately 1,730 fuel tanks would be required annually for a 95% ZE repower scenario using hydrogen-fueled technologies. Additionally, a 95% ZE scenario with any combination of both solar PV cells and hydrogen-fueled equipment was determined to be technologically infeasible. Due to limited land available that is suitable for solar PV cell installation, a maximum of 30% of power generation for Santa Catalina Island could be provided by solar PV cells. The remaining 65% of ZE hydrogen-fueled equipment needed for a 95% ZE scenario is estimated to result in approximately 1,130 fuel tanks annually.

Furthermore, a 95% ZE scenario including hydrogen-fueled technologies would likely require ancillary fuel storage facilities outside of the existing facility footprint. During the rule development process, it was determined that acquisition of the land could not be relied upon for the purposes of establishing a BARCT limit. Moreover, even if land for additional fuel storage could be acquired, the hydrogen fuel source would eventually be depleted as there are currently not enough barges to replenish the hydrogen fuel reserves.

The repower scenario comprised of 30% ZE, 65% NZE, and 5% diesel internal combustion engines is estimated to result in approximately 220 fuel tanks being delivered annually. The quantity of fuel tanks that would be delivered as a result of a repower scenario comprised of 30% ZE, 65% NZE, and 5% diesel internal combustion engines results in approximately 80 fewer fuel tanks being delivered for power generation than current operations.

For a repower scenario comprised of 30% ZE, 50% NZE, and 20% diesel internal combustion engines, approximately 276 fuel tanks per year would need to be delivered. Thus, for a repower scenario comprised of 30% ZE, 50% NZE, and 20% diesel internal combustion engines, approximately 24 fewer fuel tanks would need to be delivered relative to current operations.

The recommendation for the initial BARCT NOx emission limit is based on the technology assessment. A cost-effectiveness analysis, which includes an incremental cost-effectiveness analysis, is then made with cost information provided by stakeholders to further refine the determination for the final BARCT NOx emission limit. An initial BARCT emission limit of 1.6 tpy NOx was proposed for electric generating units located on Santa Catalina Island. The initial BARCT limit is based on any combination of technologies comprising of 30% ZE, 65% NZE, and 5% diesel internal combustion engines for power generation (MW-hr per year) on Santa Catalina Island. The initial BARCT limit was later revised to 1.8 tpy NOx after updating the emission factors used to calculate the final BARCT limit. The emission factors were updated to reflect the U.S. EPA standard for Tier 4 Final engines used in generator sets rated greater than 1,200 hp (1.48 lbs/MW-hr) and emission standard for Santa Catalina Island Zero-Emission Electric Generating Units defined in PAR 1135 (<0.01 lb/MW-hr). The updated emission factors used are conservative, as Tier 4 Final engines can achieve more than 20% lower emissions depending on load.

<sup>&</sup>lt;sup>27</sup> Staff's calculations account for the propane tanks that are delivered for utility service.

Furthermore, Santa Catalina Island Zero-Emission Electric Generating Units are not counted towards emission calculations, as specified in paragraph (e)(4) of PAR 1135.

As noted earlier, BARCT is defined as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." As such and to be consistent with state law, BARCT emission limits take into consideration environmental impacts, energy impacts, and economic impacts. As this facility is very unique being on an island and the only source of power including electricity, water movement, and waste systems, reliable sufficient power is crucial in avoiding blackouts and other public health issues related to polluted water and hazard health from biological waste exposure. When taking into consideration the various factors affecting a reliable energy supply, the final BARCT determination is for 6 tpy NOx limit. In addition to energy demand, other considerations such as power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies were taken into account. The initial BARCT analysis at 1.8 tpy was based on delivery of a certain amount of propane per year being delivered to the island and enough storage capacity for 30-days in case of unforeseen circumstances preventing the required daily deliveries by barge while avoiding any loss of power needs on the island. Due to the uncertainty that the delivery can be met all the time and potential lack of storage capacity, a lesser amount of propane delivery was evaluated. This would be an increase from the current delivery of propane but would enable the facility to power near-zero equipment that could generate 50 percent (coupled with 30 percent zero emission equipment) of the demand needed to sufficiently and reliably power all of the island's needs for electricity, water transport, and waste systems, even during peak demand. With the remaining power needed based on the usage of Tier 4 Final diesel engines, this equates to 6 tpy of NOx emissions that can be feasibly achieved. In addition, the amount of propane ensures lower emissions while providing sufficient reliable power for critical infrastructure that supports compliance with the rule emission caps and seeks to avoid rule violations.

# **CHAPTER 3**

# **EXISTING SETTING**

Introduction

**Existing Setting** 

Air Quality and Greenhouse Gas Emissions

**Criteria Air Pollutants** 

**Greenhouse Gas Emissions** 

# 3.0 INTRODUCTION

To determine the significance of the impacts associated with a proposed project, it is necessary to evaluate the proposed project's impacts against the backdrop of the environment as it exists at the time the environmental analysis is commenced. CEQA Guidelines Section 15360 defines environment as "the physical conditions that exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance." [*See also* Public Resources Code Section 21060.5]. Furthermore, a CEQA document must include a description of the physical environment in the vicinity of the proposed project, as it exists at the time the environmental analysis is commenced, from both a local and regional perspective. [CEQA Guidelines Section 15125]. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to provide an understanding of the significant effects of the proposed project and its alternatives.

The existing setting is the physical environmental conditions as they existed at the time the NOP was published, or if no NOP is published, at the time the environmental analysis is commenced. [CEQA Guidelines Section 15125].

# 3.1 EXISTING SETTING

PAR 1135 will impact one electricity generating facility located on Santa Catalina Island. PAR 1135 proposes to: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024 to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions (with a three-year extension option to meet by January 1, 2033) with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting each of 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

As allowed by CEQA Guidelines Sections 15152, 15162, and 15385, the proposed project is designed to amend and tier off of the previous CEQA assessment conducted in the November 2018

Final Mitigated SEA which was certified by the South Coast AQMD Governing Board on November 2, 2018.

The November 2018 Amendments to Rule 1135 were adopted with the goal of reducing NOx emissions from RECLAIM and non-RECLAIM electricity generating facilities which are owned or operated by an investor-owned electric utility, a publicly owned electric utility, or have electric generating units with a combined generation capacity of 50 MW or more of electrical power for distribution in the state or local electrical grid system. The November 2018 amendments to Rule 1135: 1) expanded the rule's applicability to include units at RECLAIM electricity generating facilities and units at electricity generating facilities that were not at electric power generating systems previously subject to Rule 1135; 2) updated the NOx and ammonia emission limits for boilers and gas turbines; 3) established NOx emission limits and added new emission limits for ammonia, CO, VOC, and particulate matter for internal combustion engines; 4) revised monitoring, reporting, and recordkeeping requirements; and 5) revised exemptions. Approximately 1.7 tons per day of NOx emission reductions were expected to be achieved as a result of implementing the November 2018 version of Rule 1135.

While the estimated reduction of NOx emissions from the November 2018 amendments to Rule 1135 were expected to create an environmental benefit, the November 2018 Final Mitigated SEA for Rule 1135, which is the certified regulatory program equivalent to a Mitigated Subsequent Negative Declaration under CEQA, analyzed the environmental impacts associated with the activities that six affected facilities (referred to as Facility 1, 2 3, 4, 5, and 6) were anticipated to undertake to ensure compliance with amended Rule 1135 and that these activities could create secondary adverse environmental impacts. Among all the previously analyzed environmental areas in the November 2018 Final Mitigated SEA for Rule 1135, potentially significant adverse environmental impacts were identified for the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia. As such, mitigation measures were crafted that were shown to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels. To date, the construction activities undertaken in response to the 2018 amendments to Rule 1135 have already been completed at Facilities 1, 4, and 5. Regarding Facility 6, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction and operational emissions associated with catalyst module replacement in SCR for their simple cycle turbine; however, this facility permanently shut down their turbine at the beginning of 2020. Therefore, the previously analyzed construction and operational emissions attributed to Facility 6 in the November 2018 Final Mitigated SEA have not occurred and will not occur in the future. Regarding Facility 3, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction emissions associated with removing three existing boilers and installing up to three new turbines with three new SCRs and one new aqueous ammonia storage tank. Instead, Facility 3 indicated that their repower project would shut down and remove their three existing boilers by January 1, 2024, and install a set of batteries and three new prime natural gas IC engines. Because Rule 1135 is not applicable to prime natural gas IC engines and batteries, Facility 3 will no longer be subject to Rule 1135. Therefore, of the six affected facilities identified as being subject to Rule 1135 in the November 2018 Final Mitigated SEA, only Facility 2 has yet to undergo physical modifications necessary to achieve the NOx emission limits contained in the 2018 amendments to Rule 1135. Regarding Facility 2, the November 2018 Final Mitigated SEA for Rule 1135 originally analyzed the environmental impacts associated with replacing five diesel engines with five new Tier 4 Final diesel engines to comply with a NOx emission limit of 13 tpy by January 1, 2026.

CEQA Guidelines Section 15125 defines the existing setting as the physical environmental conditions as they existed at the time the NOP was published, or if no NOP is published, at the time the environmental analysis is commenced. For the November 2018 amendments to Rule 1135, no NOP was prepared, but the environmental analysis was commenced on September 14, 2018 when the NOC announcing the availability of the Draft Mitigated SEA was released for public review and comment. The Draft Mitigated SEA for PAR 1135 contained a detailed analysis of the environmental setting and corresponding environmental effects specifically tailored to implementing the proposed amendments at that time.

Recently, the amendments to Rule 1135 were adopted on January 7, 2022 to regulate NOx emissions from combustion equipment operating at electricity generating facilities. The 2022 amendments to Rule 1135 proposed to: 1) remove ammonia limits which will be addressed during permitting; 2) reference Rule 429.2 for startup and shutdown requirements; 3) add references to the recently amended and adopted Rule 218-series rules relating to requirements for CEMS; and 4) revise the requirements for diesel internal combustion engines located on Santa Catalina Island. The 2022 amendments to Rule 1135 specifically established interim NOx emission limits (i.e., 50 tpy by January 1, 2024 and 45 tpy by January 1, 2025) for the electricity generating facility located on Santa Catalina Island. Since the 2022 amendments to Rule 1135 were not expected to cause new physical modifications, no significant adverse impacts on the environment were identified. Thus, the South Coast AQMD Governing Board determined on January 7, 2022 that the 2022 amendments to Rule 1135 were exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3); and a NOE was prepared pursuant to CEQA Guidelines Section 15062.

Currently, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years); and 4) include new NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. Table 1-1 shows the previous, current and proposed NOx emissions limits for the electric generating facility located on Santa Catalina Island as well their corresponding compliance dates.

When comparing the types of activities and environmental impacts resulting from the implementation of Rule 1135 amendments that were previously analyzed in the November 2018 Final Mitigated SEA, to the currently proposed changes which comprise PAR 1135, the type and extent of the physical changes are expected to be similar and to cause similar secondary adverse environmental impacts for the same environmental topic areas that were identified and analyzed in the November 2018 Final Mitigated SEA for Rule 1135. Thus, the proposed project is expected to have generally the same or similar effects that were previously examined in the November 2018 Final Mitigated SEA for Rule 1135. However, the air quality impacts from PAR 1135 will cause delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for the project-specific changes in the</u> 24-hour average <del>ambient air quality standards forconcentrations of</del> PM2.5 and PM10, and interim operational cancer risks which will be more severe than what was discussed in November 2018 Final Mitigated SEA. Specifically, PAR 1135 will result in delayed NOx emission reductions due to: 1) removing the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delaying the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential

<u>extension up to three years</u>); 3) delaying the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three-six years); and 4) including a new NOx emission limit of 30 tpy with compliance date of January 1, 2028 (with a potential extension up to three years). If any extension is granted for the 13 tpyany NOx emission limit as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time.

Based on the preceding discussion, the baseline that was established at the time the NOC was published for the September 2018 Draft Mitigated SEA directly corresponds to the currently proposed project since the nature of the physical impacts that may occur as a result of implementing PAR 1135 are the same as or similar to the previous analysis in November 2018 Final Mitigated SEA.

For this reason, the baseline is the project analyzed in the November 2018 Final Mitigated SEA. As such, this SEA analyzes the incremental changes that may occur subsequent to the project analyzed in the November 2018 Final Mitigated SEA if PAR 1135 is implemented.

In addition, the analysis in this SEA independently considered whether the proposed project would result in new significant impacts for any of the environmental topic areas previously concluded in the November 2018 Final Mitigated SEA to have either no significant impacts or less than significant impacts (with or without mitigation) and no environmental topic area was identified as having potentially significant adverse impacts. A description and the basis for this conclusion is included in Chapter 4 of this SEA.

The baseline for the analysis in this SEA is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135. The 2018 amendments to Rule 1135 projected an overall NOx emission reduction of approximately 1.7 tpd from the six facilities identified as potentially needing modifications in order to achieve the emission limits in Rule 1135. Of these affected facilities, all but one facility, the electricity generating facility located on Santa Catalina Island, has either made modifications to achieve the emission limits in Rule 1135 or is no longer subject to Rule 1135 requirements. Relative to Facility 2, by establishing a 13 tpy NOx limit by January 1, 2026, the 2018 amendments to Rule 1135 initially projected that approximately 57 tpy NOx emission reductions (equivalent to 0.16 tpd) would be achieved by the electricity generating facility located on Santa Catalina Island by January 1, 2026. As explained earlier, over 90% of the power generated is from the operation of six diesel internal combustion engines and these six diesel engines were last modified in 2003 to install SCR technology. No other modifications have been made at Facility 2 to address the 2018 amendments to Rule 1135. Currently, the annual NOx emissions from Facility 2 are 71.3 tpy which is greater than the 70 tpy this facility was emitting at the time the November 2018 Final Mitigated SEA was prepared.

The November 2018 Final Mitigated SEA for Rule 1135 concluded that no environmental topic area (except for hazards and hazardous materials) would have potentially significant adverse environmental impacts. Mitigation measures were crafted in the November 2018 Final Mitigated SEA that were shown to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels. As analyzed in Chapter 4, PAR 1135 is anticipated to have significant adverse air quality impacts. As such, the following subchapter is devoted to describing the regional existing setting for the air quality which was the only environmental topic area with significant changes, if PAR 1135 is implemented.

# 3.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Ambient air quality standards have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of toxic air contaminants and GHG emissions. Projects within South Coast AQMD's jurisdiction are subject to the rules and regulations imposed by the South Coast AQMD as well as regulations adopted by CARB and U.S. EPA. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

# 3.2.1 Criteria Air Pollutants

South Coast AQMD has the responsibility to ensure that state and federal ambient air quality standards (AAQS or standards) are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter (PM, which includes PM10 and PM2.5), sulfur dioxide (SO2), and lead (Pb). These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are sometimes more stringent than the federal standards, and in the case of PM10 and SO2, far more stringent. However, for ozone, the current 8-hour California Ambient Air Quality Standard (CAAQS) and the 2015 8-hour NAAQS are at an equivalent level and for PM2.5, the current annual CAAQS and the 2012 annual NAAQS are also at an equivalent level. As a result, the South Coast AQMD relies on the same measures to meet both federal and state ozone and PM2.5 standards. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride. The state and federal standards for each of these pollutants and their effects on health are summarized in Table 3-1.

South Coast AQMD monitors levels of various criteria pollutants at 38 monitoring stations. The 2020 air quality data (the latest data available) from South Coast AQMDs monitoring stations are presented in Tables 3-2 through 3-8 for the individual criteria air pollutants monitored by South Coast AQMD.

Pollutant	Averaging Time	State Standard <sup>a</sup>	Federal Primary Standard <sup>b</sup>	Most Relevant Effects
	1-hour	0.09 ppm (180 μg/m <sup>3</sup> )	0.12 ppm	(a) Short-term exposures: 1) Pulmonary function decrements and localized lung
Ozone (O3)	8-hour	0.070 ppm (137 μg/m <sup>3</sup> )	0.070 ppm (137 μg/m <sup>3</sup> )	edema in humans and animals; and 2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; and (d) Property damage.
Suspended Particulate Matter	24-hour	50 µg/m <sup>3</sup>	$150 \ \mu g/m^3$	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; and (b) Excess seasonal declines in pulmonary
(PM10)	Annual Arithmetic Mean	20 μg/m <sup>3</sup>	No Federal Standard	function, especially in children.
	24-hour	No State Standard	35 µg/m <sup>3</sup>	<ul> <li>(a) Increased hospital admissions and emergency room visits for heart and lung disease; (b) Increased respiratory symptoms and disease; and (c) Decreased lung</li> </ul>
Suspended Particulate Matter (PM2.5)	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12 μg/m <sup>3</sup>	functions and premature death.
	1-Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	<ul> <li>(a) Aggravation of angina pectoris and other aspects of coronary heart disease;</li> <li>(b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease;</li> <li>(c) Impairment of central nervous</li> </ul>
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	system functions; and (d) Possible increased risk to fetuses.

 Table 3-1

 State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard <sup>a</sup>	Federal Primary Standard <sup>b</sup>	Most Relevant Effects
Nitrogen Dioxide	1-Hour	0.18 ppm (339 μg/m <sup>3</sup> )	0.100 ppm (188 μg/m <sup>3</sup> )	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical
(NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm (57 μg/m <sup>3</sup> )	0.053 ppm (100 μg/m <sup>3</sup> )	and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide	1-Hour	0.25 ppm (655 μg/m <sup>3</sup> )	75 ppb (196 μg/m <sup>3</sup> )	Broncho-constriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during
(SO <sub>2</sub> )	24-Hour	0.04 ppm (105 μg/m <sup>3</sup> )	No Federal Standard	exercise or physical activity in persons with asthma.
Sulfates	24-Hour	25 μg/m <sup>3</sup>	No Federal Standard	<ul> <li>(a) Decrease in ventilatory function;</li> <li>(b) Aggravation of asthmatic symptoms;</li> <li>(c) Aggravation of cardio-pulmonary disease;</li> <li>(d) Vegetation damage;</li> <li>(e) Degradation of visibility; and</li> <li>(f) Property damage.</li> </ul>
Hydrogen Sulfide (H <sub>2</sub> S)	1-Hour	0.03 ppm (42 μg/m <sup>3</sup> )	No Federal Standard	Odor annoyance.
	30-Day Average	1.5 μg/m <sup>3</sup>	No Federal Standard	
Lead (Pb)	Calendar Quarter	No State Standard	$1.5 \ \mu g/m^3$	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction.
	Rolling 3- Month Average	No State Standard	0.15 μg/m <sup>3</sup>	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standard	The statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. This is a visibility-based standard not a health-based standard. Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent.
Vinyl Chloride	24-Hour	0.01 ppm (26 μg/m <sup>3</sup> )	No Federal Standard	Highly toxic and a known carcinogen that causes a rare cancer of the liver.
ppm = parts per millio	n parts of air, by volume on parts of air, by volum	e	mg/m3 = milligra	ans per cubic meter ms per cubic meter b. PM10 and PM2 5 are values not to be exceeded All

# Table 3-1 (concluded)State and Federal Ambient Air Quality Standards

<sup>a</sup> The California ambient air quality standards for O<sub>3</sub>, CO, SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub>, PM10, and PM2.5 are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

<sup>b</sup> The national ambient air quality standards, other than  $O_3$  and those based on annual averages are not to be exceeded more than once a year. The  $O_3$  standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standards is equal to or less than one.

## **Carbon Monoxide**

CO is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations due to variations in the rate at which CO is emitted and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable portion of the day.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Reductions in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include preterm births and heart abnormalities.<sup>28,29,30</sup>

On August 12, 2011, U.S. EPA issued a decision to retain the existing NAAQS for CO, determining that those standards provided the required level of public health protection. However, U.S. EPA added a monitoring requirement for near-road CO monitors in urban areas with population of one million or more, utilizing stations that would be implemented to meet the 2010 NO<sub>2</sub> near-road monitoring requirements. The two new CO monitors are at the I-5 near-road site, located in Orange County near Anaheim, and the I-10 near-road site, located near Etiwanda Avenue in San Bernardino County near Ontario, Rancho Cucamonga, and Fontana.

As summarized in Table 3-2, CO concentrations were measured at 23 locations in the South Coast Air Basin and neighboring Salton Sea Air Basin in 2020 but did not exceed the state or federal standards in 2020. The highest 1-hour average CO concentration recorded was 4.5 parts per million (ppm) at the South Central Los Angeles County station, less than the federal and state 1-hour CO standards of 35 ppm and 20 ppm, respectively. The highest 8-hour average CO concentration recorded was 3.1 ppm at the South Central Los Angeles County station, less than the federal and state 8-hour CO standards of 9.0 ppm. All areas within the South Coast AQMD's jurisdiction are in attainment for both the federal and state 1-hour and 8-hour CO standards.

<sup>&</sup>lt;sup>28</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants. <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>29</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>30</sup> South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <u>https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document</u>, accessed on July 23, 2024.

CARBON MONOXIDE (CO) <sup>a</sup>						
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 8-hour		
LOS ANGELES	COUNTY					
1	Central Los Angeles	359	1.9	1.5		
2	Northwest Coastal Los Angeles County	365	2.0	1.2		
3	Southwest Coastal Los Angeles County	364	1.6	1.3		
6	West San Fernando Valley	363	2.0	1.7		
8	West San Gabriel Valley	361	2.6	2.2		
9	East San Gabriel Valley 1	349	2.4	2.0		
9	East San Gabriel Valley 2	310	2.3	1.9		
10	Pomona/Walnut Valley	363	1.5	1.1		
11	South San Gabriel Valley	362	3.1	1.7		
12	South Central Los Angeles County	364	4.5	3.1		
13	Santa Clarita Valley	363	1.2	0.8		
ORANGE COU	NTY					
16	North Orange County	347	2.1	1.2		
17	Central Orange County	361	2.3	1.7		
17	I-5 Near Road <sup>##</sup>	359	2.4	2.0		
19	Saddleback Valley	366	1.7	0.8		
RIVERSIDE CO	DUNTY					
23	Metropolitan Riverside County 1	361	1.9	1.4		
23	Metropolitan Riverside County 3	359	1.8	1.5		
25	Elsinore Valley	358	0.9	0.7		
30	Coachella Valley 1**	365	0.8	0.5		
SAN BERNARD	DINO COUNTY					
32	Northwest San Bernardino Valley	364	1.5	1.1		
33	I-10 Near Road <sup>##</sup>	363	1.5	1.2		
34	Central San Bernardino Valley 1	358	1.7	1.2		
34	Central San Bernardino Valley 2	360	1.9	1.4		
DISTRICT MAX	XIMUM <sup>(b)</sup>		4.5	3.1		
SOUTH COAST	AIR BASIN <sup>(c)</sup>		4.5	3.1		

Table 3-2
South Coast AQMD – 2020 Air Quality Data – CO <sup>31</sup>

ppm = parts per minion of air, by volume  $^{##}$  Four near-road sites measuring one or more of the pollutants PM2.5, CO, and/or NO<sub>2</sub> are operating near the following freeways: I-5, I-10, CA-60, and I-710. <sup>a</sup> The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded.

The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded either.

<sup>b</sup> District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

<sup>c</sup> Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

<sup>&</sup>lt;sup>31</sup> South Coast AQMD, 2021. "2020 Air Quality - South Coast Air Quality Management District – CO," Historical Air Quality Data for Year 2020 at locations where CO was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-databy-year/aq2020card\_final.pdf</u>, accessed on July, 2024.

#### Ozone

Ozone (O<sub>3</sub>), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Some mixing of stratospheric ozone downward through the troposphere to the earth's surface does occur; however, the extent of ozone transport is limited. At the earth's surface in sites remote from urban areas ozone concentrations are normally very low (e.g., from 0.03 ppm to 0.05 ppm).

Ozone is highly reactive with organic materials, causing damage to living cells and ambient ozone concentrations in the Basin are frequently sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities. Elevated ozone levels are also associated with increased school absences. Ozone exposure under exercising conditions is known to increase the severity of the previously mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants which include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.<sup>32,33,34</sup>

As summarized in Table 3-3, O<sub>3</sub> concentrations were measured at 29 locations in the South Coast Air Basin and the Coachella Valley portion of the Salton Sea Air Basin in 2020. Maximum ozone concentrations for all areas monitored were below the stage 1 episode level (0.20 ppm) and below the health advisory level (0.15 ppm). All counties in the Basin, as well as the Coachella Valley, exceeded the level of the 2015 federal 8-hour O<sub>3</sub> standard (0.070 ppm), the state 1-hour O<sub>3</sub> standard (0.09 ppm), and the state 8-hour O<sub>3</sub> standard (0.070 ppm) in 2020. All but one monitoring station (Southwest Coast LA County) exceeded the former 2008 federal 8-hour O<sub>3</sub> standard (0.075 ppm).

Maximum 1-hour average and 4<sup>th</sup> highest 8-hour average ozone concentrations were 0.185 ppm and 0.125 ppm, respectively (at the Central LA station and East San Bernardino Valley station, respectively), which are greater than the federal 1-hour and 8-hour ozone NAAQS of 0.12 ppm and 0.070 ppm, respectively. The federal 8-hour standard is met at an air quality monitor when the 3-year average of the annual fourth-highest daily maximum 8-hour average is less than 0.070 ppm. The maximum 1-hour concentration also exceeded the state 1-hour ozone standard of 0.09 ppm.

<sup>&</sup>lt;sup>32</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>33</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-</u>

source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf, accessed on July 23, 2024.
 <sup>34</sup> South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed on July 23, 2024.

All areas within South Coast AQMD's jurisdiction are in nonattainment for both the federal and state 1-hour and 8-hour ozone standards.

			OZON	$\mathbf{VE} (\mathbf{O}_3)^{(a)}$	ı)					
			Max.	Max.	4th		No. Days	s Standard	Exceeded	
Source	Location of Air	No.	Conc.	Conc.	High	F	ederal (pp	n)	State	(ppm)
Receptor Area No.	Monitoring Station	Days of Data	in ppm 1-hr	in ppm 8-hr	Conc. ppm 8-hr	Old > 0.124 1-hr	Current > 0.070 8-hr*	2008 > 0.075 8-hr	Current > 0.09 1-hr	Current > 0.070 8-hr
LOS ANG	ELES COUNTY									
1	Central LA	332	0.185	0.118	0.093	1	22	16	14	22
2	Northwest Coastal LA County	357	0.134	0.092	0.078	1	8	5	6	8
3	Southwest Coastal LA County	350	0.117	0.074	0.066	0	2	0	1	2
4	South Coastal LA County 4	332	0.105	0.083	0.071	0	4	2	4	4
6	West San Fernando Valley	345	0.142	0.115	0.097	0	49	23	14	49
7	East San Fernando Valley	359	0.133	0.108	0.102	5	49	33	31	49
8	West San Gabriel Valley	354	0.163	0.115	0.108	9	60	44	41	60
9	East San Gabriel Valley 1	347	0.168	0.125	0.105	11	61	43	53	61
9	East San Gabriel Valley 2	348	0.173	0.138	0.124	17	97	71	76	97
10	Pomona/Walnut Valley	353	0.180	0.124	0.106	10	84	53	51	84
11	South San Gabriel Valley	356	0.169	0.114	0.089	3	23	15	20	23
12	South Central LA County	354	0.152	0.115	0.072	1	4	3	3	4
13	Santa Clarita Valley	348	0.148	0.122	0.106	10	73	56	44	73
ORANGE	COUNTY									
16	North Orange County	340	0.171	0.133	0.088	3	23	19	15	23
17	Central Orange County	356	0.142	0.097	0.079	2	15	4	6	15
19	Saddleback Valley	364	0.171	0.122	0.090	1	32	25	20	32
RIVERSI	DE COUNTY									
23	Metropolitan Riverside County 1	348	0.143	0.115	0.102	6	81	59	46	81
23	Metropolitan Riverside County 3	350	0.140	0.117	0.103	7	89	62	51	89
24	Perris Valley	358	0.125	0.106	0.097	1	74	48	34	74
25	Elsinore Valley	355	0.130	0.100	0.093	1	52	30	18	52
26	Temecula Valley	364	0.108	0.091	0.084	0	37	20	5	37
29	San Gorgonio Pass	358	0.150	0.115	0.104	3	68	48	29	68
30	Coachella Valley 1**	360	0.119	0.094	0.089	0	49	28	9	49
30	Coachella Valley 2**	358	0.097	0.084	0.081	0	42	17	2	42
SAN BERI	NARDINO COUNTY									
32	Northwest San Bernardino Valley	360	0.158/	0.123	0.116	15	114	87	82	114
34	Central San Bernardino Valley 1	348	0.151	0.111	0.105	8	89	65	56	89
34	Central San Bernardino Valley 2	359	0.162	0.128	0.122	15	128	110	89	128
35	East San Bernardino Valley	361	0.173	0.136	0.125	16	141	127	104	141
37	Central San Bernardino Mountains	364	0.159	0.139	0.117	7	118	97	69	118
	Г MAXIMUM <sup>(b)</sup>		0.185	0.139	0.125	17	141	127	104	141
SOUTH C	OAST AIR BASIN <sup>(c)</sup>		0.185	0.139	0.125	27	157	142	132	157
ppm = parts p	er million of air, by volume			**Salton S	ea Air Basin					

Table 3-3 South Coast AQMD – 2020 Air Quality Data – O3<sup>35</sup>

<sup>a</sup> The current (2015) O<sub>3</sub> federal standard was revised effective December 28, 2015.

<sup>b</sup> District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

<sup>c</sup> Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

<sup>35</sup> South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where O3 was monitored; http://www.aqmd.gov/docs/default-source/air-quality/historical-data-byyear/aq2020card\_final.pdf, accessed on July 23, 2024.

### Nitrogen Dioxide

 $NO_2$  is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N<sub>2</sub>) and oxygen (O<sub>2</sub>) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form  $NO_2$ .  $NO_2$  is responsible for the brownish tinge of polluted air. The two gases, NO and  $NO_2$ , are referred to collectively as NOx. In the presence of sunlight,  $NO_2$  reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form  $O_3$ , via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO<sub>3</sub>) which reacts further to form nitrates, components of PM2.5 and PM10.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO<sub>2</sub> at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO<sub>2</sub> in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these subgroups. More recent studies have found associations between NO<sub>2</sub> exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms, and emergency room asthma visits. In animals, exposure to levels of NO<sub>2</sub> considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO<sub>2</sub>.<sup>36,37,38</sup>

With the revised NO<sub>2</sub> federal standard in 2010, near-road NO<sub>2</sub> measurements were required to be phased in for larger cities. The four near-road monitoring stations are: 1) I-5 near-road, located in Orange County near Anaheim; 2) I-710 near-road, located at Long Beach Blvd. in Los Angeles County near Compton and Long Beach; 3) State Route 60 (SR-60 or CA-60) near-road, located west of Vineyard Avenue near the San Bernardino/Riverside County border near Ontario, Mira Loma, and Upland; and 4) I-10 near-road, located near Etiwanda Avenue in San Bernardino County near Ontario, Rancho Cucamonga, and Fontana.

As summarized in Table 3-4, NO<sub>2</sub> concentrations were measured at 27 locations in the South Coast Air Basin and neighboring Salton Sea Air Basin in 2020 with one station (CA-60 Near Road) exceeding the federal 1-hour standard in 2020. There have been exceedances of the peak 1-hour standard at the I-710 near-road station in 2017, and the CA-60 near-road in 2020; however, the 98<sup>th</sup> percentile value has not exceeded the standard.<sup>39</sup> The highest annual average NO<sub>2</sub> concentration recorded was 29.1 ppb (at the CA-60 Near Road station), which is less than the federal and state annual NO<sub>2</sub> standards of 53 ppb and 30 ppb, respectively. All areas within South Coast AQMD's jurisdiction are in attainment for both the federal and state 1-hour and annual NO<sub>2</sub> standards.

<sup>&</sup>lt;sup>36</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>37</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.

 <sup>38</sup> South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document.

<sup>&</sup>lt;sup>39</sup> South Coast AQMD, 2022. 2022 Draft Air Quality Management Plan, p. 2-49. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/05-ch2.pdf</u>.

	NITROGEN D	IOXIDE (NO <sub>2</sub> ) <sup>a</sup>			
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. in ppb 1-hour	98 <sup>th</sup> Percentile Conc. in ppb 1-hour	Annual Average AAM Conc ppb
LOS ANGELES CO	DUNTY				
1	Central LA	364	61.8	54.7	16.9
2	Northwest Coastal LA County	360	76.6	43.9	10.6
3	Southwest Coastal LA County	364	59.7	50.9	9.5
4	South Coastal LA County 4	357	75.3	56.3	12.8
4	I-710 Near Road <sup>##</sup>	355	90.3	79.1	22.3
6	West San Fernando Valley	365	57.2	50.1	12.1
7	East San Fernando Valley	357	60.4	52.4	14.5
8	West San Gabriel Valley	354	61.2	49.7	13.6
9	East San Gabriel Valley 1	347	64.8	54.1	13.6
9	East San Gabriel Valley 2	366	50.4	41.9	8.5
10	Pomona/Walnut Valley	355	67.9	59.8	18.3
11	South San Gabriel Valley	365	69.2	573.8	17.8
12	South Central LA County	362	72.3	60.5	14.5
13	Santa Clarita Valley	361	46.3	35.9	9.4
ORANGE COUNT	Y				
16	North Orange County	347	57.2	50.1	12.7
17	Central Orange County	364	70.9	52.1	13.3
17	I-5 Near Road <sup>##</sup>	365	69.9	52.6	18.8
RIVERSIDE COUN	NTY	I		1	
23	Metropolitan Riverside County 1	359	66.4	54.1	13.6
23	Metropolitan Riverside County 3	352	58.1	49.9	12.3
25	Elsinore Valley	345	43.6	37.9	7.4
29	San Gorgonio Pass	363	51.1	47.1	8.5
30	Coachella Valley 1**	365	47.4	34.3	6.6
SAN BERNARDIN		1		1	
32	Northwest San Bernardino Valley	364	55.4	44.8	13.9
33	I-10 Near Road <sup>##</sup>	345	94.2	75.1	28.7
33	CA-60 Near Road <sup>##</sup>	346	101.6	78.0	29.1
34	Central San Bernardino Valley 1	360	66.4	57.9	18.7
34	Central San Bernardino Valley 2	35	54.0	45.6	14.9
DISTRICT MAXIM	-	1	101.6	86.3	29.1
SOUTH COAST AI	R BASIN <sup>(c)</sup>		101.6	86.3	29.1
ppb = parts per billion AAM = Annual Arithm Pollutant not monitor	etic Mean	*Incomplete data **Salton Sea Air Basin	n		

Table 3-4South Coast AQMD – 2020 Air Quality Data –  $NO_2^{40}$ 

-- Pollutant not monitored

## Four near-road sites measuring one or more of the pollutants PM2.5, CO, and/or NO2 are operating near the following freeways: I-5, I-10, CA-60, and I-710.

a The NO2 federal 1-hour standard is 100 ppb and the annual standard is annual arithmetic mean NO2 > 0.0534 ppm (53.4 ppb). The state 1-hour and annual standards are 0.18 ppm (180 ppb) and 0.030 ppm (30 ppb).

b District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

c Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

<sup>&</sup>lt;sup>40</sup> South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where NO<sub>2</sub> was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-byyear/aq2020card\_final.pdf</u>, accessed on July 23, 2024.

### Sulfur Dioxide

 $SO_2$  is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H<sub>2</sub>SO<sub>4</sub>), which contributes to acid precipitation, and sulfates, which are components of PM10 and PM2.5. Most of the SO<sub>2</sub> emitted into the atmosphere is produced by burning sulfur-containing fuels.

Exposure of a few minutes to low levels of  $SO_2$  can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of  $SO_2$ . In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to  $SO_2$ . In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of  $SO_2$ . Animal studies suggest that despite  $SO_2$  being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient  $SO_2$  levels. In these studies, efforts to separate the effects of  $SO_2$  from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.<sup>41,42,43</sup>

As summarized in Table 3-5, SO<sub>2</sub> concentrations were measured at five locations in 2020. No exceedances of 1-hour federal or state standards of 75 ppb and 250 ppb respectively, for SO<sub>2</sub> occurred in 2020 at any of the five locations monitored the Basin. The maximum 1-hour SO<sub>2</sub> concentration was 6.0 ppb (recorded at the Southwest Coast LA County station). The 99<sup>th</sup> percentile of 1-hour SO<sub>2</sub> concentration was 9.4 ppb (recorded at the South Coastal Los Angeles County 3 station). Though SO<sub>2</sub> concentrations remain well below the standards, SO<sub>2</sub> is a precursor to sulfate, which is a component of fine particulate matter, PM10, and PM2.5. Historical measurements showed concentrations to be well below standards and monitoring has been discontinued at other stations. All areas within South Coast AQMD's jurisdiction are in attainment for both the federal and state 1-hour SO<sub>2</sub> standards.

<sup>&</sup>lt;sup>41</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>42</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>43</sup> South Coast AQMD. 2005. May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <u>https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document</u>, accessed on July 23, 2024.

SULFUR DIOXIDE (SO <sub>2</sub> ) <sup>a</sup>						
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Maximum Conc. ppb, 1-hour	99 <sup>th</sup> Percentile Conc. ppb, 1-hour		
LOS ANGELES CO	UNTY					
1	1 Central LA		3.8	3.3		
3 Southwest Coastal LA County		361	6.0	3.3		
4	South Coastal LA County 3			9.4		
RIVERSIDE COUN	ГҮ					
23	Metropolitan Riverside County 1	356	2.2	1.7		
34 Central San Bernardino Valley 1		363	2.5	1.7		
DISTRICT MAXIMUM <sup>(b)</sup>				3.3		
SOUTH COAST AII		6.0	3.3			
ppb = parts per billion		= Pollutant not me	onitored			

Table 3-5
South Coast AQMD – 2020 Air Quality Data – SO <sub>2</sub> <sup>44</sup>

<sup>a</sup> The SO<sub>2</sub> federal 1-hour standard is 75 ppb. The state 1-hour and 24-hour standards are 0.25 ppm (250 ppb) and 0.04 ppm (40 ppb), respectively.

<sup>b</sup> District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

<sup>c</sup> Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

#### Particulate Matter (PM10 and PM2.5)

Of great concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. Respirable particles (particulate matter less than about 10 micrometers in diameter (PM10)) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis, and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of particulate matter.

A consistent correlation between elevated ambient fine particulate matter (PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by PM2.5 and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in PM2.5 concentrations have also been related to hospital admissions for acute respiratory conditions, to school and kindergarten absences, to a decrease in respiratory function in normal children, and to increased medication use in children and adults with asthma. Studies have also shown lung function growth in children is reduced with long-term exposure to particulate matter. In addition to children, the elderly and people with preexisting respiratory and/or cardiovascular disease appear to be more susceptible to the effects of PM10 and PM2.5.<sup>45,46,47</sup>

<sup>&</sup>lt;sup>44</sup> South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where SO<sub>2</sub> was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-byyear/aq2020card\_final.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>45</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on June 10, 2022.

<sup>&</sup>lt;sup>46</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.

 <sup>&</sup>lt;sup>47</sup> South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <u>https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document</u>, accessed on July 23, 2024.

As summarized in Table 3-6, PM10 concentrations were measured at 23 locations in 2020. While the Coachella Valley Portion of the Salton Sea Air Basin is in nonattainment, the South Coast Air Basin has remained in attainment for the federal 24-hour PM10 standard ( $150 \mu g/m^3$ ) since 2006, and it was not exceeded in 2020. The maximum 24-hour PM10 concentration of 259  $\mu g/m^3$  was recorded at the Coachella Valley 3 station, but this high reading was attributed to high winds and is excluded in accordance with the U.S. EPA Exceptional Event Rule. Also, due to rounding considerations, the federal standard is technically 155  $\mu g/m^3$ . The state 24-hour PM10 (50  $\mu g/m^3$ ) standard was exceeded at several of the monitoring stations. All areas within South Coast AQMD's jurisdiction are in nonattainment for the state 24-hour PM10 standard, which was exceeded at 19 of the monitoring stations in 2020.

The maximum annual average PM10 concentration of  $52.2 \,\mu g/m^3$  was recorded at the Metropolitan Riverside County 3 station. The federal annual PM10 standard has been revoked. The state annual PM10 standard ( $20 \,\mu g/m^3$ ) was exceeded in most stations in each county in the Basin and in the Coachella Valley. All areas within South Coast AQMD's jurisdiction are in nonattainment for the state annual PM10 standard, which was exceeded at most stations in each county in the South Coast Air Basin and in the Coachella Valley in 2020.

On December 14, 2012, U.S. EPA strengthened the annual NAAQS for PM2.5 to  $12 \mu g/m^3$  and, as part of the revisions, a requirement was added to monitor near the most heavily trafficked roadways in large urban areas. Particle pollution is expected to be higher along these roadways because of direct emissions from cars and heavy-duty diesel trucks and buses. South Coast AQMD installed the two required PM2.5 monitors at locations selected based upon the heavy-duty diesel traffic, which are: 1) I-710, located at Long Beach Blvd. in Los Angeles County near Compton and Long Beach; and 2) SR-60 near-road, located west of Vineyard Avenue near the San Bernardino/Riverside County border near Ontario, Mira Loma, and Upland.

As summarized in Table 3-7, PM2.5 concentrations were measured at 19 locations in 2020. While the Coachella Valley Portion of the Salton Sea Air Basin is in attainment, the South Coast Air Basin is in nonattainment for federal and state PM2.5 standards. The maximum 98<sup>th</sup> percentile 24-hour PM2.5 concentration of 34.7  $\mu$ g/m<sup>3</sup> was recorded at the Metropolitan Riverside County station, less than the federal 24-hour PM2.5 standard of 35  $\mu$ g/m<sup>3</sup>. There is no state 24-hour standard for PM2.5. The maximum annual average PM2.5 concentration of 14.36  $\mu$ g/m<sup>3</sup> was recorded at the CA-60 Near Road station, greater than the federal and state annual PM2.5 standard of 12  $\mu$ g/m<sup>3</sup>.

	SUSPENDED	PARTIC	CULATE	MATTER PM1	) <sup>a+</sup>	
		No.	Max.	No. (%) Samples	Annual Average	
Source Receptor Area No.	Location of Air Monitoring Station	Days of Data	Conc. μg/m <sup>3</sup> , 24-hour	Federal > 150 μg/m <sup>3</sup> , 24-hour	State > 50 μg/m³, 24-hour	AAM Conc. <sup>b</sup> µg/m <sup>3</sup>
LOS ANGELES CO	UNTY					
1	Central LA	337	77	0	24 (7%)	23.0
3	Southwest Coastal LA County	37	43	0	0	22.3
4	South Coastal LA County 2	42	59	0	2 (5%)	24.9
4	South Coastal LA County 3	12	54	0	2 (17%)	27.8
9	East San Gabriel Valley 1	43	95	0	8 (19%)	37.7
9	East San Gabriel Valley 2	333	105	0	9 (3%)	25.2
13	Santa Clarita Valley	36	48	0	0	22.5
ORANGE COUNTY	7					
17	Central Orange County	329	120	0	13 (4%)	23.9
19	Saddleback Valley	42	53	0	1 (2%)	16.8
RIVERSIDE COUN	TY				• •	
22	Corona/Norco Area	44	100	0	10 (23%)	39.1
23	Metropolitan Riverside County 1	320	104	0	110 (34%)	30.0
23	Metropolitan Riverside County 3	304	124	0	154 (51%)	52.2
24	Perris Valley	37	77	0	6 (16%)	35.9
25	Elsinore Valley	334	84	0	7 (2%)	22.0
29	San Gorgonio Pass	42	46	0	0	19.2
30	Coachella Valley 1**	251	48	0	0	20.4
30	Coachella Valley 2**	317	77	0	8 (3%)	29.1
30	Coachella Valley 3**	320	259	1 (0%)	69 (22%)	38.0
SAN BERNARDING	O COUNTY					
32	Northwest San Bernardino Valley	305	63	0	12 (4%)	30.5
34	Central San Bernardino Valley 1	40	61	0	6 (15%)	35.8
34	Central San Bernardino Valley 2	320	80	0	81 (25%)	38.7
35	East San Bernardino Valley	40	57	0	1 (3%)	23.4
37	Central San Bernardino Mountains	40	51	0	1 (3%)	18.1
DISTRICT MAXIM	UM <sup>(c)</sup>		259	1	154	52.2
SOUTH COAST AI	R BASIN <sup>(d)</sup>		124	0	173	52.2
$\mu g/m^3 = micrograms$	per cubic meter of air Arithmetic Mean	Basin		bendence Day firework	in Coachella Valley (due t s) are excluded in accordar	

Table 3-6South Coast AQMD – 2020 Air Quality Data – PM1048

PM10 statistics listed above are based on combined Federal Reference Method (FRM) and Federal Equivalent Method (FEM) data. Filter-based measurements for PM10 from March 28, 202 to June 2, 2020 are not available due to COVID-19 Pandemic.

<sup>b</sup> State annual average (AAM) PM10 standard is >  $20 \ \mu g/m^3$ . Federal annual PM10 standard (AAM >  $50 \ \mu g/m^3$ ) was revoked in 2006.

<sup>c</sup> District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

<sup>d</sup> Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

<sup>&</sup>lt;sup>48</sup> South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where PM10 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-byyear/aq2020card\_final.pdf</u>, accessed on July 23, 2024.

				E MATTER I	1	
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. μg/m <sup>3</sup> , 24-hour	98 <sup>th</sup> Percentile Conc. in µg/m <sup>3</sup> 24-hr	No. (%) Samples Exceeding Federal Std > 35 µg/m <sup>3</sup> , 24-hour	Annual Average AAM Conc. <sup>b</sup> µg/m <sup>3</sup>
LOS ANGE	LES COUNTY					
1	Central LA	353	47.30	28.00	2 (1%)	12.31
4	South Coastal LA County 1	117	28.10	26.10	0	11.26
4	South Coastal LA County 2	357	39.00	28.00	1 (0%)	11.38
4	I-710 Near Road <sup>##</sup>	356	44.00	31.50	2 (1%)	12.93
6	West San Fernando Valley	116	27.60	26.40	0	10.13
8	West San Gabriel Valley	117	34.90	31.20	0	11.06
9	East San Gabriel Valley 1	116	33.00	25.80	0	11.13
11	South San Gabriel Valley	116	35.40	30.50	0	13.22
12	South Central LA County	352	43.20	34.10	7 (2%)	13.57
ORANGE C	OUNTY					
17	Central Orange County	355	41.40	27.10	1 (0%)	11.27
19	Saddleback Valley	120	35.00	32.70	0	8.81
RIVERSIDI	E COUNTY				·	•
23	Metropolitan Riverside County 1	357	41.00	29.60	4 (1%)	12.63
23	Metropolitan Riverside County 3	358	38.70	34.70	5 (1%)	14.03
30	Coachella Valley 1**	122	23.90	16.90	0	6.42
30	Coachella Valley 2**	121	25.60	20.20	0	8.41
SAN BERN	ARDINO COUNTY					•
33	CA-60 Near Road <sup>##</sup>	356	53.10	3.70	4 (1%)	14.36
34	Central San Bernardino Valley 1	117	46.10	27.40	1 (1%)	11.95
34	Central San Bernardino Valley 2	115	25.70	24.70	0	11.66
38	East San Bernardino Mountains	58	24.30	20.40	0	7.62
DISTRICT	MAXIMUM <sup>(c)</sup>		53.1	34.1	7	14.36
SOUTH CO	AST AIR BASIN <sup>(d)</sup>		53.1	34.1	13	14.36
	rams per cubic meter of air	AAN	I = Annual Arith		-	

Table 3-7South Coast AQMD – 2020 Air Quality Data – PM2.549

PM2.5 statistics listed above are for the FRM data only with the exception of Central Orange County, I-710 Near Road, Metropolitan Riverside County 1 and 3, CA-60 Near Road, and South Coastal LA Count 2 where FEM PM2.5 measurements are used to supplement missing FRM measurements because they pass the screening criteria for the South Coast AQMD Continuous Monitor Comparability Assessment and Request for Waiver dated July 1, 2021.

<sup>b</sup> Federal and State standards are annual average (AAM) > 12.0  $\mu$ g/m<sup>3</sup>.

<sup>c</sup> District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

<sup>1</sup> Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

#### Lead

Under the federal Clean Air Act, lead is classified as a "criteria pollutant." Lead causes observed adverse health effects at ambient concentrations. Lead is also deemed a carcinogenic toxic air contaminant (TAC) by the Office of Environmental Health Hazard Assessment (OEHHA). Lead in the atmosphere is a mixture of several lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric lead in the Basin over the past three decades. In fact, there were no violations of the lead standards at South Coast AQMD's regular air monitoring stations from 1982 to 2020, primarily due to the removal of lead from gasoline.

<sup>&</sup>lt;sup>49</sup> South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where PM2.5 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-byyear/aq2020card\_final.pdf</u>, accessed on July 23, 2024.

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bone tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.<sup>50, 51, 52</sup>

As summarized in Table 3-8, South Coast AQMD monitored lead concentrations at eight monitoring stations in 2020. The South Coast Air Basin (Los Angeles County area) is currently in nonattainment for lead. This nonattainment designation was due to the operations of specific stationary sources of lead emissions. The Mojave Desert Air Basin and Salton Sea Air Basin are both in attainment for lead. The South Coast AQMD has petitioned U.S. EPA for a redesignation to attainment for the federal lead standard for the Los Angeles County nonattainment area. Stringent South Coast AQMD rules governing lead-producing sources will help to ensure that there are no future violations of the federal standard. At the time of this report, South Coast AQMD has not yet received a response from U.S. EPA regarding the petition. The current lead concentrations in Los Angeles County are below the federal 3-month rolling average standard of  $0.15 \,\mu g/m^3$ . Further, the state 30-day standard of  $1.5 \,\mu g/m^3$  was not exceeded in any areas under the jurisdiction of the South Coast AQMD in 2020.

# Sulfates

Sulfates are chemical compounds which contain the sulfate ion and are part of the mixture of solid materials which make up PM10. Most of the sulfates in the atmosphere are produced by oxidation of SO<sub>2</sub>. Oxidation of sulfur dioxide yields sulfur trioxide (SO<sub>3</sub>), which reacts with water to form sulfuric acid, which then contributes to acid deposition. The reaction of sulfuric acid with basic substances such as ammonia yields sulfates, a component of PM10 and PM2.5.

Most of the health effects associated with fine particles and  $SO_2$  at ambient levels are also associated with sulfates. Thus, both mortality and morbidity effects have been observed with an increase in ambient sulfate concentrations. However, efforts to separate the effects of sulfates from the effects of other pollutants have generally not been successful.<sup>53,54,55</sup>

<sup>&</sup>lt;sup>50</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>51</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>52</sup> South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <u>https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>53</sup> U.S. Environmental Protection Agency. 2020. Criteria Air Pollutants, <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>54</sup> South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>55</sup> South Coast AQMD. 2005, May. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <u>https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document</u>, accessed on July 23, 2024.

		LEAD	a++	SULFATES <sup>b</sup>		
Source Receptor Area No.	Location of Air Monitoring Station	Max. Monthly Average Conc. <sup>m</sup> µg/m <sup>3</sup>	Max. 3- Month Rolling Average <sup>m</sup> µg/m <sup>3</sup>	No. Days of Data	Max. Conc. µg/m <sup>3</sup> , 24-hour	
LOS ANGE	LES COUNTY					
1	Central LA	0.013	0.011	45	3.3	
3	Southwest Coastal LA County	0.008	0.005			
4	South Coastal LA County 2	0.008	0.006			
4	South Coastal LA County 3			14	2.3	
9	East San Gabriel Valley 1	0.010	0.007	45	3.1	
11	South San Gabriel Valley	0.012	0.011			
12	South Central LA County	0.010	0.009			
ORANGE C	COUNTY					
17	Central Orange County			44	3.3	
RIVERSIDI	E COUNTY					
23	Metropolitan Riverside County 1	0.016	0.010	84	5.2	
30	Coachella Valley 2**			89	2.7	
SAN BERN	ARDINO COUNTY					
34	Central San Bernardino Valley 1			44	3.0	
34	Central San Bernardino Valley 2	0.010	0.09			
DISTRICT	MAXIMUM <sup>(c)</sup>	0.016	0.011		5.2	
SOUTH CO	AST AIR BASIN <sup>(d)</sup>	0.016	0.011		5.2	
	nicrograms per cubic meter of air tot monitored a Air Basin	++ Higher lead consistes immediately monthly and 3-mon $\mu/m^3$ .	downwind of s	stationary lead	sources. Maximu	

 Table 3-8

 South Coast AQMD – 2020 Air Quality Data – Lead and Sulfates<sup>56</sup>

<sup>a</sup> Federal lead standard is 3-months rolling average > 0.15  $\mu$ g/m<sup>3</sup>; state standard is monthly average ≥ 1.5  $\mu$ g/m<sup>3</sup>. Leas standards were not exceeded.

<sup>b</sup> State sulfate standard is 24-hour  $\ge 25 \ \mu g/m^3$ . There is no federal standard for sulfate.

<sup>c</sup> District Maximum is the maximum value calculated at any station in the South Coast AQMD jurisdiction.

<sup>d</sup> Concentrations are the maximum value observed at any station in the South Coast Air Basin. Number of daily exceedances are the total number of days that the indicated concentration is exceeded at any station in the South Coast Air Basin.

As summarized in Table 3-8, South Coast AQMD monitored sulfate at seven monitoring stations in 2020. The state 24-hour sulfate standard of 25  $\mu$ g/m<sup>3</sup> was not exceeded in the South Coast Air Basin, which is in attainment for sulfate. The Mojave Desert Air Basin and Salton Sea Air Basin are also in attainment for sulfate. There are no federal sulfate standards.

#### Vinyl Chloride

Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as A1 (confirmed carcinogen in humans) and by the International Agency for Research on Cancer (IARC) as 1 (known to be a human carcinogen).<sup>57</sup> At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is stored as a liquid. Due to the hazardous nature of vinyl chloride to human health there are no end products that use vinyl

<sup>&</sup>lt;sup>56</sup> South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where lead and sulfates were monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historicaldata-by-year/aq2020card\_final.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>57</sup> International Agency for Research on Cancer. Vinyl Chloride Exposure Data, <u>https://monographs.iarc.who.int/wp-content/uploads/2018/06/mono100F-31.pdf</u>, accessed on June 10, 2022.

chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important industrial chemical chiefly used to produce polymer polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles.

In the past, vinyl chloride emissions have been associated primarily with sources such as landfills. Risks from exposure to vinyl chloride are considered to be localized impacts rather than regional impacts. Because landfills in the South Coast AQMD are subject to Rule 1150.1 – Control of Gaseous Emissions from Municipal Solid Waste Landfills, which contain stringent requirements for landfill gas collection and control, potential vinyl chloride emissions are expected to be below the level of detection. Therefore, South Coast AQMD does not monitor for vinyl chloride at its monitoring stations.

## Volatile Organic Compounds

There are no state or NAAQS for VOCs because they are not classified as criteria pollutants. VOCs are regulated, however, because VOCs are a precursor to the formation of ozone in the atmosphere. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM10 and lower visibility levels.

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low concentrations. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, one hydrocarbon component of VOC emissions, is known to be a human carcinogen.

### Non-Criteria Pollutants

Although South Coast AQMD's primary mandate is attaining the state and NAAQS for criteria pollutants within the Basin, South Coast AQMD also has a general responsibility pursuant to Health and Safety Code Section 41700 to control emissions of air contaminants and prevent endangerment to public health. Additionally, state law requires South Coast AQMD to implement ATCMs adopted by CARB and to implement the Air Toxics "Hot Spots" Act. As a result, South Coast AQMD has regulated pollutants other than criteria pollutants such as TACs, GHGs, and stratospheric ozone depleting compounds. South Coast AQMD has developed several rules which are designed to control non-criteria pollutants from both new and existing sources. These rules originated through state directives, CAA requirements, or the South Coast AQMD rulemaking process.

In addition to promulgating non-criteria pollutant rules, South Coast AQMD has been evaluating control measures in the 2016 AQMP as well as existing rules to determine whether they would affect, either positively or negatively, emissions of non-criteria pollutants. For example, rules which target the VOC components of coating materials and that allow for the replacement of the VOC components with a non-photochemically reactive chlorinated substance would reduce the

impacts resulting from ozone formation but could increase emissions of toxic compounds or other substances that may have adverse impacts on human health.

**Carcinogenic Health Risks from TACs:** One of the primary health risks of concern due to exposure to TACs is the risk of contracting cancer. The carcinogenic potential of TACs is a public health concern because it is currently believed by many scientists that there is no 'safe' level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of causing cancer. It is currently estimated that about one in four deaths in the United States is attributable to cancer. The proportion of cancer deaths attributable to air pollution has not been estimated using epidemiological methods.

**Non-cancer Health Risks from TACs:** Unlike carcinogens, for most non-carcinogens it is believed that there is a threshold level of exposure to the compound below which it will not pose a health risk. CalEPA's OEHHA develops Reference Exposure Levels (RELs) for TACs are health-conservative estimates of the levels of exposure at or below which health effects are not expected. The non-cancer health risk due to exposure to a TAC is assessed by comparing the estimated level of exposure to the REL. The comparison is expressed as the ratio of the estimated exposure level to the REL, called the hazard index (HI).

**Multiple Air Toxics Exposure Study (MATES):** In 1986, South Coast AQMD conducted the first MATES report to determine the risks associated with major airborne carcinogens in the South Coast Air Basin. The most current version (MATES V<sup>58</sup>) consists of a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize risk across the South Coast Air Basin. The study focuses on the carcinogenic risk from exposure to air toxics but does not estimate mortality or other health effects from criteria pollutant exposures which are conducted as part of the 2016 AQMP. Two key updates were implemented in MATES V. First, cancer risk estimations now take into account multiple exposure pathways. Previous MATES studies quantified the cancer risks based on the inhalation pathway only; a cumulative cancer risk accounting for inhalation and non-inhalation pathways is approximately 8% higher than the inhalation-only calculation for the MATES V data. Second, along with cancer risk estimates, MATES V includes information on the chronic non-cancer health impacts from inhalation and non-inhalation pathways is approximately twice the inhalation-only calculation for the MATES V data.

#### **3.2.2** Greenhouse Gas Emissions

Greenhouse gases (GHGs) trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The latter, anthropogenic sources of GHGs, is the focus of impacts under CEQA. Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts, and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health

<sup>&</sup>lt;sup>58</sup> South Coast AQMD, MATES V, Multiple Air Toxics Exposure Study in the South Coast AQMD, Final Report, August 2021. <u>http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report.pdf</u>, accessed on July 23, 2024.

impacts of  $CO_2$  'domes' that form over urban areas showed that they cause increases in local temperatures and local criteria pollutants, which have adverse health effects.<sup>59</sup>

### 3.2.2.1 Climate Change

Global climate change is a change in the average weather of the Earth, which can be measured by wind patterns, storms, precipitation, and temperature. Historical records have shown that temperature changes have occurred in the past, such as during previous ice ages. Data indicates that the current temperature record differs from previous climate changes in rate and magnitude.

Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs), comparable to a greenhouse, which captures and traps radiant energy. GHGs are emitted by natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature. Global warming is the observed increase in average temperature of the earth's surface and atmosphere. The primary cause of global warming is an increase of GHGs in the atmosphere. The six major GHGs are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbon (PFCs). The GHGs absorb longwave radiant energy emitted by the Earth, which warms the atmosphere. The GHGs also emit longwave radiation both upward to space and back down toward the surface of the Earth. The downward part of this longwave radiation emitted by the atmosphere is known as the "greenhouse effect." Emissions from human activities such as fossil fuel combustion for electricity production and vehicles have elevated the concentration of these gases in the atmosphere.

- **Carbon dioxide** (**CO**<sub>2</sub>) is an odorless, colorless greenhouse gas. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO<sub>2</sub> include burning coal, oil, gasoline, natural gas, and wood.
- Methane (CH<sub>4</sub>) is a flammable gas and is the main component of natural gas.
- Nitrous Oxide (N<sub>2</sub>O), also known as laughing gas, is a colorless greenhouse gas. Some industrial processes such as fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions also contribute to the atmospheric load of N<sub>2</sub>O.
- Sulfur hexafluoride (SF<sub>6</sub>) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.
- **Hydrofluorocarbons (HFCs)** are synthetic man-made chemicals composed of hydrogen, fluorine, and carbon that are used as a substitute for chlorofluorocarbons (whose production was stopped as required by the Montreal Protocol) for use in automobile air conditioners and refrigerants.

<sup>&</sup>lt;sup>59</sup> Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO<sub>2</sub> Domes," Environmental Science and Technology, as described in Stanford University press release on March 16, 2010 available at: <u>https://web.stanford.edu/group/efmh/jacobson/Articles/V/CO2SOM0310.pdf</u>, accessed on July 23, 2024.

• **Perfluorocarbons (PFCs)** are synthetic man-made chemicals composed of fluorine and carbon that are used as a substitute for chlorofluorocarbons in producing aluminum and manufacturing semiconductors

Scientific consensus, as reflected in recent reports issued by the United Nations Intergovernmental Panel on Climate Change, is that the majority of the observed warming over the last 50 years can be attributable to increased concentration of GHGs in the atmosphere due to human activities. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants. In the past, gradual changes in temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but in a human's lifetime. Industrial activities, particularly increased consumption of fossil fuels (gasoline, diesel, coal, etc.), have heavily contributed to the increase in atmospheric levels of GHGs. The United Nations Intergovernmental Panel on Climate Change constructed several emission trajectories of greenhouse gases needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of greenhouse gases at 400 to 450 ppm carbon dioxide-equivalent (CO<sub>2</sub>eq) concentration is required to keep global mean warming below two degrees Celsius, which has been identified as necessary to avoid dangerous impacts from climate change.<sup>60</sup>

The potential health effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, air quality impacts, and sea level rise. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems (e.g., heat rash and heat stroke). In addition, climate sensitive diseases may increase, such as those spread by mosquitoes and other insects. Those diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding, hurricanes, and wildfires can displace people and agriculture, which would have negative consequences. Drought in some areas may increase, which would decrease water and food availability. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.<sup>61</sup>

The impacts of climate change will also affect projects in various ways. Effects of climate change are rising sea levels and changes in snowpack.<sup>62</sup> The extent of climate change impacts at specific locations remains unclear.

Federal, state, and local agencies are working towards more precisely quantifying impacts in various regions. As an example, the California Department of Water Resources is expected to formalize a list of foreseeable water quality issues associated with various degrees of climate change. Once state government agencies make these lists available, they could be used to more precisely determine to what extent a project creates global climate change impacts.

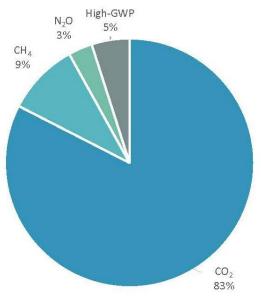
<sup>&</sup>lt;sup>60</sup> Intergovernmental Panel on Climate Change (IPCC). 2014. *Fifth Assessment Report: Climate Change 2014*. New York: Cambridge University Press, <u>https://www.ipcc.ch/report/ar5/syr/</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>61</sup> Center for Disease Control. 2016. Climate Change Decreases the Quality of the Air We Breathe. <u>https://www.cdc.gov/climate-health/media/pdfs/AIR-QUALITY-Final\_508\_1.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>62</sup> Office of Environmental Health Hazards Assessment, 2018. Indicators of Climate Change in California. <u>https://oehha.ca.gov/media/downloads/climate-change/report/2018caindicatorsreportmay2018.pdf</u>, accessed on July 23, 2024.

#### 3.2.2.1.1 Statewide Inventory

GHG emissions in the state have been inventoried by CARB. As shown in Figure 3-1, CO2 accounts for 83% of the total 418.2 million metric tons (MT) of CO<sub>2</sub>eq emissions in the California in 2019. Figure 3-2 illustrates that transportation (primarily on-road travel) is the single largest source of CO<sub>2</sub> emissions in the state. Upstream transportation emissions from the refinery and oil and gas sectors are categorized as CO<sub>2</sub> emissions from industrial sources and constitute about 50% of the industrial source emissions. When these emissions sources are attributed to the transportation sector, the emissions from the transportation, electricity production, and industrial and residential sources also are important contributors to CO<sub>2</sub> emissions. Figures 3-1 and 3-2 show state GHG emission contributions by GHG and sector based on the 2019 Greenhouse Gas Emission Inventory. The emissions presented in Figure 3-2 are depicted by Scoping Plan sector, which includes separate categories for high-global warming potential (GWP) and recycling/waste emissions that are otherwise typically included within other economic sectors.



2019 Total CA Emissions: 418.2 MMTCO<sub>2</sub>e

Figure 3-1 2019 Statewide GHG Emission Contributions by GHG<sup>63</sup>

<sup>&</sup>lt;sup>63</sup> CARB, 2022. Draft 2022 Scoping Plan Update, Figure 1-7, page 33, <u>https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf</u>, accessed on July 23, 2024.

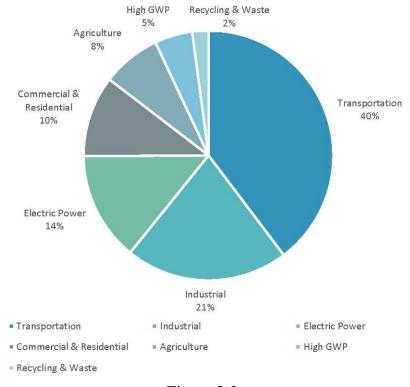


Figure 3-2 2019 Statewide GHG Emission Contributions by Scoping Plan Sector<sup>64</sup>

The GHG emission inventory encompasses emission sources within the state's border, as well as imported electricity consumed in the state. Statewide GHG emissions calculations use many data sources, including data from other state and federal agencies. However, the primary source of data comes from reports submitted to CARB through the CARB Regulation for the Mandatory Reporting of GHG Emissions, which requires facilities and entities with more than 10,000 metric tons of CO<sub>2</sub>eq to report emissions directly to CARB. Reported emissions greater than 25,000 metric tons are required to be verified by a CARB-accredited third-part verification body.

#### 3.2.2.2 Regulatory Setting

#### 3.2.2.2.1 Federal

**Greenhouse Gas Endangerment Findings:** On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding greenhouse gases pursuant to the federal Clean Air Act (CAA) Section 202(a). The Endangerment Finding stated that CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub> taken in combination endanger both the public health and the public welfare of current and future generations. The *Cause or Contribute Finding* stated that the combined emissions from motor vehicles and motor vehicle engines contribute to the greenhouse gas air pollution that endangers public health and welfare. These findings were a prerequisite for implementing GHG standards for vehicles. The U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) finalized emission standards for light-duty vehicles in May 2010 and for heavy-duty vehicles in August of 2011. Subsequently, the U.S. EPA rolled back the light duty GHG standards, a decision which is currently under litigation. In August 2021, the U.S. EPA proposed replacement

<sup>&</sup>lt;sup>64</sup> CARB, 2022. Draft 2022 Scoping Plan Update, Figure 1-8, page 34, <u>https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf</u>, accessed on July 23, 2024.

GHG standards for light-duty vehicles and announced plans to reduce GHG emissions from heavyduty trucks through a series of major rulemakings over the next three years with the first to be finalized in 2022.<sup>65</sup> On March 7, 2022, the U.S. EPA proposed the first step in the U.S. EPA's "Clean Trucks Plan" that would revise existing GHG standards for model year 2027 and beyond trucks in subsectors where electrification is advancing at a more rapid pace. The sectors include school buses, transit buses, commercial delivery trucks, and short-haul tractors.

**Renewable Fuel Standard:** The Renewable Fuel Standard (RFS) program was established under the Energy Policy Act (EPAct) of 2005 and required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Energy Independence and Security Act (EISA) of 2007, the RFS program was expanded to include diesel, required that the volume of renewable fuel blended into transportation fuel be increased from nine billion gallons in 2008 to 36 billion gallons by 2022, established new categories of renewable fuel, and required U.S. EPA to apply lifecycle GHG performance threshold standards so that each category of renewable fuel emits fewer greenhouse gases than the petroleum fuel it replaces. In a separate measure, the U.S. EPA will be setting new GHG emission standards for heavy-duty vehicles as soon as model year 2030, which will more comprehensively address the long-term trend towards zero emission vehicles across the heavy-duty sector.<sup>66</sup>

**GHG Tailoring Rule:** On May 13, 2010, U.S. EPA finalized the GHG Tailoring Rule to phase in the applicability of the Prevention of Significant Deterioration (PSD) and Title V operating permit programs for GHGs. The GHG Tailoring Rule was tailored to include the largest GHG emitters, while excluding smaller sources (restaurants, commercial facilities and small farms). The first phase (from January 2, 2011 to June 30, 2011) addressed the largest sources that contributed 65% of the stationary GHG sources. Title V GHG requirements were triggered only when affected facility owners/operators were applying, renewing or revising their permits for non-GHG pollutants. PSD GHG requirements were applicable only if sources were undergoing permitting actions for other non-GHG pollutants and the permitted action would increase GHG emission by 75,000 metric tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>eq) per year or more. The Tailoring Rule originally included a second phase for sources that were not otherwise major sources but had the potential to emit 100,000 metric tons of CO<sub>2</sub>eq per year. In 2014, the U.S. Supreme Court held that U.S. EPA was limited to phase 1.

**GHG Reporting Program:** U.S. EPA issued the Mandatory Reporting of Greenhouse Gases Rule (40 CFR Part 98) under the 2008 Consolidated Appropriations Act. The Mandatory Reporting of Greenhouse Gases Rule requires reporting of GHG data from large sources and suppliers under the Greenhouse Gas Reporting Program. Suppliers of certain products that would result in GHG emissions if released, combusted or oxidized; direct emitting source categories; and facilities that inject  $CO_2$  underground for geologic sequestration or any purpose other than geologic sequestration are included. Facilities that emit 25,000 metric tons or more per year of GHGs as  $CO_2$ eq are required to submit annual reports to U.S. EPA.

**Ozone-Depleting Substances:** Under the CAA Title VI, the U.S. EPA is assigned responsibility for implementing programs that protect the stratospheric ozone layer. 40 CFR Part 82 contains

<sup>&</sup>lt;sup>65</sup> U.S. EPA, 2021. EPA to Overhaul Pollution Standards for Passenger Vehicles and Heavy-Duty Trucks, Paving Way for Zero-Emission Future, News Release, August 5, 2021. <u>https://www.epa.gov/newsreleases/epa-overhaul-pollution-standardspassenger-vehicles-and-heavy-duty-trucks-paving-way</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>66</sup> U.S. EPA, 2022. EPA Proposes Stronger Standards for Heavy-Duty Vehicles to Promote Clean Air, Protect Communities, and Support Transition to Zero-Emissions Future, News Release, March 7, 2022. <u>https://www.epa.gov/newsreleases/epa-proposesstronger-standards-heavy-duty-vehicles-promote-clean-air-protect</u>, accessed on July 23, 2024.

U.S. EPA's regulations specific to protecting the ozone layer. These U.S. EPA regulations phase out the production and import of ozone-depleting substances (ODSs) consistent with the Montreal Protocol.<sup>67</sup> ODSs are typically used as refrigerants or as foam-blowing agents. ODS are regulated as Class I or Class II controlled substances. Class I substances have a higher ozone-depleting potential and have been completely phased out in the United States, except for exemptions allowed under the Montreal Protocol. Class II substances are HCFCs, which are transitional substitutes for many Class I substances and are being phased out.

### 3.2.2.2.2 State

## **Statewide GHG Reduction Targets**

**Executive Order S-3-05:** In June 2005, Governor Schwarzenegger signed Executive Order S-3-05, which established emission reduction targets. The goals would reduce GHG emissions to 2000 levels by 2010, then to 1990 levels by 2020, and to 80% below 1990 levels by 2050.

**Assembly Bill (AB) 32 – Global Warming Solutions Act:** On September 27, 2006, AB 32, the California Global Warming Solutions Act of 2006, was signed by Governor Schwarzenegger. AB 32 expanded on Executive Order S-3-05. The California legislature stated that "global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." AB 32 represented the first enforceable statewide program in the U.S. to cap all GHG emissions from major industries that includes penalties for non-compliance. While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 laid out a program to inventory and reduce GHG emissions in California and from power generation facilities located outside the state that serve California residents and businesses.

Consistent with the requirement to develop an emission reduction plan, CARB prepared a Scoping Plan indicating how GHG emission reductions will be achieved through regulations, market mechanisms, and other actions. The 2008 Scoping Plan called for reducing GHG emissions to 1990 levels by 2020. This means cutting approximately 30% from business-as-usual (BAU) emission levels projected for 2020, or about 15% from 2005 to 2008 levels.<sup>68</sup> However, as of January 1, 2020, SB 32 became the guiding GHG regulation.

**Senate Bill (SB) 32 and AB 197:** In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197, making the Executive Order goal of reducing GHG emissions to 40% below 1990 levels by 2030 into a statewide, mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources. CARB prepared a 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 million MTCO<sub>2</sub>eq for the year 2030, which corresponds to a 40% decrease in 1990 levels

<sup>&</sup>lt;sup>67</sup> The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) is an international treaty designed to phase out halogenated hydrocarbons such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which are considered ODSs. The Montreal Protocol was first signed on September 16, 1987 and has been revised seven times. The U.S. ratified the original Montreal Protocol and each of its revisions.

<sup>&</sup>lt;sup>68</sup> California Air Resources Board. 2008, December. Climate Change Scoping Plan, A Framework for Change.

by 2030.<sup>69</sup> On May 10, 2022, CARB released the Draft 2022 Scoping Plan Update for public review and assessed progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045.

The major elements of the Draft 2022 Scoping Plan Update include: 1) "the aggressive reduction of fossil fuels wherever they are currently used in California, building on and accelerating carbon reduction programs that have been in place here for a decade and a half; and 2) re-envisioning of our forests, shrublands/chaparral, croplands, wetlands, and other lands (referred to as Natural and Working Lands) to ensure that they play as robust a role as possible in incorporating and storing more carbon in the trees, plants, soil, and wetlands that cover 90% of the state's 105 million acres. Specifically, the Draft 2022 Scoping Plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40% below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 or earlier.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as a driving principle throughout the document.
- Incorporates the contribution of natural and working lands to the state's GHG emissions, as well as its role in achieving carbon neutrality.
- Relies on the most up to date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration as well a direct air capture.
- Evaluates multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each.<sup>70</sup>

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero emission and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conserve agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

<sup>&</sup>lt;sup>69</sup> CARB, 2017, California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, <u>https://www.arb.ca.gov/cc/scopingplan/2030sp\_pp\_final.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>70</sup> CARB 2022, Draft 2022 Scoping Plan Update, May 10, 2022, Executive Summary, <u>https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf</u>, accessed on July 23, 2024.

- Implementing and/or increasing the stringency of the standards for the various strategies covered under the Mobile Source Strategy, which include increasing ZE buses and trucks.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18% by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency and utilizes near-zero emission technology and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.<sup>71</sup>

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the state's long-term GHG reduction goals and recommended local actions to reduce GHG emissions-for example, statewide targets of no more than six MTCO<sub>2</sub>eq or less per capita by 2030 and two MTCO<sub>2</sub>eq or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40% and 80%, respectively) to the state's 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize onsite design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.<sup>72</sup>

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick that is, what would the GHG emissions look like if the state did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit. It includes the existing renewables requirements, advanced clean cars, the LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or

<sup>&</sup>lt;sup>71</sup> CARB, 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, <u>https://www.arb.ca.gov/cc/scopingplan/2030sp\_pp\_final.pdf</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>72</sup> CARB, 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, <u>https://www.arb.ca.gov/cc/scopingplan/2030sp\_pp\_final.pdf</u>, accessed on July 23, 2024.

measures that have been developed or put into statute over the past two years. The known commitments are expected to result in emissions that are 60 million MTCO<sub>2</sub>eq above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

## Mobile Sources

AB 1493 Vehicular Emissions: Prior to the U.S. EPA and NHTSA joint rulemaking, Governor Schwarzenegger signed Assembly Bill AB 1493 (2002). AB 1493 requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state." CARB originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009 (see amendments to CCR Title 13 Sections 1900 and 1961 (13 CCR 1900, 1961), and the adoption of CCR Title 13 Section 1961.1 (13 CCR 1961.1)). California's first request to the U.S. EPA to implement GHG standards for passenger vehicles was made in December 2005 and subsequently denied by the U.S. EPA in March 2008. The U.S. EPA then granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. On April 1, 2010, CARB filed amended regulations for passenger vehicles as part of California's commitment toward the national program to reduce new passenger vehicle GHGs from 2012 through 2016. In 2012, CARB approved the Low-Emission Vehicle (LEV) III regulations which include increasingly stringent emission standards for both criteria pollutants and greenhouse gases for new passenger vehicles of manufacture years 2017 through 2025.73

Low Carbon Fuel Standard (LCFS): In the 2008 Scoping Plan, CARB identified the LCFS as one of the nine discrete early action GHG reduction measures. The LCFS is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives, which reduce petroleum dependency and achieve air quality benefits. CARB approved the LCFS regulation in 2009 and began implementation on January 1, 2011 and has been amended several times since adoption. In 2018, CARB approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector. The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. The LCFS standards are expressed in terms of the 'carbon intensity' of gasoline and diesel fuel and their respective substitutes. The program is based on the principle that each fuel has 'lifecycle' greenhouse gas emissions that include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and other GHG contributors. This lifecycle assessment examines the GHG emissions associated with the production, transportation, and use of a given fuel. The lifecycle assessment includes direct emissions associated with producing, transporting, and using the fuels, as well as significant indirect effects on GHG emissions, such as changes in land use for some biofuels. The carbon intensity scores assessed for each fuel are compared to a declining carbon intensity benchmark for each year. Low carbon fuels below the

<sup>&</sup>lt;sup>73</sup> CARB, Low-Emission Vehicle Greenhouse Gas Program, <u>https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/lev-program/low-emission-vehicle-greenhouse-gas</u>, accessed on July 23, 2024.

benchmark generate credits, while fuels above the carbon intensity benchmark generate deficits. Providers of transportation fuels must demonstrate that the mix of fuels they supply for use in California meets the LCFS carbon intensity standards, or benchmarks, for each annual compliance period. A deficit generator meets its compliance obligation by ensuring that the quantity of credits it earns or otherwise acquires from another party is equal to, or greater than, the deficits it has incurred.

**EO S-1-07:** Governor Schwarzenegger signed Executive Order S-1-07 in 2007 which established the transportation sector as the main source of GHG emissions in California. Executive Order S-1-07 proclaims that the transportation sector accounts for over 40% of statewide GHG emissions. Executive Order S-1-07 also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10% by 2020. Executive Order S-1-07 established the LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the 'life-cycle carbon intensity' of transportation fuels. The analysis supporting development of the protocols was included in the State Alternative Fuels Plan adopted by CEC on December 24, 2007 and was submitted to CARB for consideration as an 'early action' item under AB 32. CARB adopted the LCFS on April 23, 2009.

**EO B-16-2012:** Executive Order B-16-2012 establishes long-term targets of reaching 1.5 million zero emission vehicles on California's roadways by 2025 and sets zero emission vehicle purchasing requirements for state government fleets. Executive Order B-16-2012 also sets a target for 2050 to achieve a reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels. In February 2013, an interagency working group developed the "Zero-Emission Vehicle Action Plan," which identified specific strategies and actions that state agencies needed to take to meet the milestones of this Executive Order. The Zero-Emission Vehicle Action Plan states: "*Zero-Emission Vehicles are crucial to achieving the state's 2050 greenhouse gas goal of 80 percent emission reductions below 1990 levels, as well as meeting federal air quality standards. Achieving 1.5 million Zero-Emission Vehicles by 2025 is essential to advance the market and put the state on a path to meet these requirements."* 

**EO N-79-20:** On September 23, 2020, Governor Newsom signed Executive Order N-79-20 which included the following goals to have: 1) 100% of in-state sales of new passenger cars and trucks transition to zero emission vehicles by 2035; 2) 100% of drayage trucks transition to zero emission vehicles by 2035; 3) 100% of medium- and heavy-duty vehicles transition to zero emission vehicles by 2045 for all operations in California, where feasible; and 4) 100% of off-road vehicles and equipment to transition to zero emission vehicles and equipment by 2035, where feasible.

**SB 44:** The California Legislature passed SB 44, acknowledging the ongoing need to evaluate opportunities for mobile source emissions reductions and requires CARB to update the 2016 Mobile Source Strategy by January 1, 2021, and every five years thereafter. Specifically, SB 44 requires CARB to update the 2016 Mobile Source Strategy to include a comprehensive strategy for the deployment of medium- and heavy-duty vehicles for meeting air quality standards and reducing GHG emissions. It also directs CARB to set reasonable and achievable goals for reducing emissions by 2030 and 2050 from medium- and heavy-duty vehicles that are consistent with the California's overall goals and maximizes the reduction of criteria air pollutants.

**SB 375:** SB 375, signed into law in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable

Communities Strategy (SCS) or Alternative Planning Strategy (APS) which prescribes land use allocation in that MPO's Regional Transportation Plan (RTP). CARB, in consultation with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned GHG emission reduction targets. If MPOs do not meet the GHG reduction targets, transportation projects located in the MPO boundaries would not be eligible for funding programmed after January 1, 2012.

CARB appointed the Regional Targets Advisory Committee (RTAC), as required under SB 375, on January 23, 2009. The RTAC's charge was to advise CARB on the factors to be considered and methodologies to be used for establishing regional targets. The RTAC provided its recommendation to CARB on September 29, 2009. CARB was required to adopt final targets by September 30, 2010.<sup>74</sup>

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018.<sup>75,76</sup> The updated targets became effective on October 1, 2018. The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies, and any potential future state strategies, such as statewide road user pricing. The targets also call for greater per-capita GHG emission reductions from SB 375 than what were previously in place, which for 2035 translate into targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS to achieve the SB 375 targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8% per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19% per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13%).<sup>77</sup> CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these revised targets.

**SCAG's Regional Transportation Plan / Sustainable Communities Strategy:** SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. SCAG released the draft 2020-2045 RTP/SCS (Connect SoCal) on November 7, 2019. On September 3, 2020, SCAG's Regional Council unanimously voted to approve and fully adopt the Connect SoCal Plan.<sup>78</sup> In general, the SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle

<sup>&</sup>lt;sup>74</sup> California Air Resources Board 2010, August. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.

<sup>&</sup>lt;sup>75</sup> California Air Resources Board, 2018, SB 375 Regional Greenhouse Gas Emissions Reduction Targets <u>https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375\_Final\_Targets\_2018.pdf</u>, accessed on July 23, 2024.

 <sup>&</sup>lt;sup>76</sup> California Air Resources Board, 2018, Updated Final Staff Report: Proposed Update to the SB 375 Greenhouse Gas Emissions Reduction Targets, <u>https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375 Updated Final Target Staff Report 2018.pdf</u>, accessed on v July 23, 2024.

<sup>&</sup>lt;sup>77</sup> California Air Resources Board. 2018, February. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. <u>https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375\_Updated\_Final\_Target\_Staff\_Report\_2018.pdf</u>, accessed on July 23, 2024

<sup>&</sup>lt;sup>78</sup> Southern California Association of Governments (SCAG). 2020, September. Adopted Final Connect SoCal. <u>https://scag.ca.gov/read-plan-adopted-final-plan</u>, accessed on July 23, 2024.

miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land uses strategies in development of the SCAG region through horizon year 2045. Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of eight percent by 2020 and 19% by 2035. Additionally, Connect SoCal also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1% compared to baseline conditions for that year. Connect SoCal includes a 'Core Vision' that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

#### **Adaptation**

**EO S-13-08:** Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008 which directed California to develop methods for adapting to climate change through preparation of a statewide plan. Executive Order S-13-08 directed OPR, in cooperation with the Resources Agency, to provide land use planning guidance related to sea level rise and other climate change impacts by May 30, 2009. Executive Order S-13-08 also directed the Resources Agency to develop a state Climate Adaptation Strategy by June 30, 2009 and to convene an independent panel to complete the first California Sea Level Rise Assessment Report. The assessment report was required to be completed by December 1, 2010 and required to meet the following four criteria:

- 1. Project the relative sea level rise specific to California by considering issues such as coastal erosion rates, tidal impacts, El Niño and La Niña events, storm surge, and land subsidence rates;
- 2. Identify the range of uncertainty in selected sea level rise projections;
- 3. Synthesize existing information on projected sea level rise impacts to state infrastructure (e.g., roads, public facilities, beaches), natural areas, and coastal and marine ecosystems; and
- 4. Discuss future research needs relating to sea level rise in California.

#### **Energy**

**SB 1078, SB 107 and EO S-14-08:** SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date from 2017 to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Portfolio Standard from 20% by 2010 to 33% renewable power by 2020.

**SB X-1-2:** SB X1-2 was signed by Governor Brown in April 2011. SB X1-2 created a new Renewables Portfolio Standard (RPS), which pre-empted CARB's 33% Renewable Electricity Standard. The new RPS applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators. These entities must adopt the new RPS goals of 20% of retails sales from renewables by the end of 2013, 25% by the end of 2016, and the 33% requirement by the end of 2020.

**SB 1368:** SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (CPUC)to establish a GHG emission performance standard for baseload generation from investor-owned utilities (IOUs) by February 1, 2007. The California Energy Commission (CEC) was also required to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload combined-cycle natural gas fired power plant. The legislation further required that all electricity provided to California, including imported electricity, must be generated from power plants that meet the standards set by the Public Utilities Commission (PUC) and CEC.

**SB 350:** Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS with 40% by 2024, 45% by 2027, and 50% by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

**SB 100:** On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44% renewable energy by 2024, 52% by 2027, and 60% by 2030. Additionally, SB 100 also established a new RPS requirement of 50% by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100% of all retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100% carbon-free electricity target.

**EO B-55-18:** Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directed CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80% below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of  $CO_2eq$  from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

**AB 2127:** This bill requires the California Energy Commission (CEC), working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least five million zero emission vehicles on California roads by 2030 and of reducing emissions of greenhouse gases to 40% below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure.<sup>79</sup>

**California Building Code** – **Building Energy Efficiency Standards:** Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The CEC updates building energy efficiency standards in Title 24 (Parts 6 and 11) every three years to allow for consideration and possible

<sup>&</sup>lt;sup>79</sup> California Legislative Information, September 14, 2018, AB-2127 Electric Vehicle Charging Infrastructure: Assessment, <u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\_id=201720180AB2127</u>, accessed on July 23, 2024.

incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and went into effect on January 1, 2020. The 2019 standards move toward cutting energy use in new homes by more than 50% and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements.<sup>80</sup>

In addition, the CEC adopted the 2022 Building Energy Efficiency Standards adopted on August 11, 2021 but they do not go into effect until January 1, 2023. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

**California Building Code – CALGreen:** On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR Part 11, known as 'CALGreen') was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.<sup>81</sup> The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011 and were last updated in 2019. The 2019 CALGreen standards became effective January 1, 2020. Section 5.408 of CALGreen requires that at least 65% of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

#### **Short-Lived Climate Pollutants**

**SB 1383:** On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required CARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40%, hydrofluorocarbon gases by 40%, and anthropogenic black carbon by 50% below 2013 levels by 2030, as specified. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Reduction Strategy," which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90% lower than in the early 1960s despite

<sup>&</sup>lt;sup>80</sup> California Energy Commission (CEC). 2018. News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. <u>https://www.nbcnews.com/news/us-news/california-becomes-first-state-require-solar-panelsnew-homes-n872531</u>, accessed on July 23, 2024.

<sup>&</sup>lt;sup>81</sup> California Building Standards Commission, 2022. CalGreen as promulgated in the California Code of Regulations, Title 24, Part 11 (24 CCR Part 11). <u>https://www.dgs.ca.gov/BSC/CALGreen</u>.

the tripling of diesel fuel use. In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80% between 2000 and 2020.

#### **Ozone Depleting Substances (ODSs)**

**Refrigerant Management Program:** As part of implementing AB 32, CARB also adopted a Refrigerant Management Program in 2009. The Refrigerant Management Program is designed to reduce GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal.

**HFC Emission Reduction Measures for Mobile Air Conditioning – Regulation for Small Containers of Automotive Refrigerant:** The Regulation for Small Containers of Automotive Refrigerant applies to the sale, use, and disposal of small containers of automotive refrigerant with a GWP greater than 150. Emission reductions are achieved through implementation of four requirements: 1) use of a self-sealing valve on the container; 2) improved labeling instructions; 3) a deposit and recycling program for small containers; and 4) an education program that emphasizes best practices for vehicle recharging. This regulation went into effect on January 1, 2010 with a one-year sell-through period for containers manufactured before January 1, 2010. The target recycle rate is initially set at 90% and increased to 95% beginning January 1, 2012.

#### 3.2.2.3 South Coast AQMD

The South Coast AQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the South Coast AQMD to consider global impacts in rulemaking and in drafting revisions to the AQMP. In March 1992, the South Coast AQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include support of the adoption of a California GHG emission reduction goal.

**Basin GHG Policy and Inventory:** The South Coast AQMD has established a policy, adopted by the South Coast AQMD Governing Board at its September 5, 2008 meeting, to actively seek opportunities to reduce emissions of criteria, toxic, and climate change pollutants. The policy includes the intent to assist businesses and local governments implementing climate change measures, decrease the agency's carbon footprint, and provide climate change information to the public.

#### **3.2.2.3.** Ozone Depleting Substances (ODSs)

**Policy on Global Warming and Stratospheric Ozone Depletion:** The South Coast AQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy targeted a transition away from CFCs as an industrial refrigerant and propellant in aerosol cans. In March 1992, the South Coast AQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives for ODSs:

- Phase out the use and corresponding emissions of CFCs, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995.
- Phase out the large quantity use and corresponding emissions of HCFCs by the year 2000.
- Develop recycling regulations for HCFCs.
- Develop an emissions inventory and control strategy for methyl bromide.

#### **CHAPTER 4**

#### **ENVIRONMENTAL IMPACTS**

**Introduction and Background** 

**Potential Environmental Impacts Found to be Significant: Air Quality and Greenhouse Gas Emissions Impacts** 

**Significant Environmental Effects Which Cannot be Avoided** 

**Other Environmental Impacts Found Not to Be Significant** 

**Potential Growth-Inducing Impacts** 

**Relationship Between Short-Term and Long-Term Environmental** Goals

#### 4.0 INTRODUCTION AND BACKGROUND

The CEQA Guidelines require environmental documents to identify significant environmental effects that may result from a proposed project. [CEQA Guidelines Section 15126.2(a)]. Direct and indirect significant effects of a project on the environment should be identified and described, with consideration given to both short- and long-term impacts. The discussion of environmental impacts may include, but is not limited to, the following: resources involved; physical changes; alterations of ecological systems; health and safety problems caused by physical changes; and other aspects of the resource base, including water, scenic quality, and public services. If significant adverse environmental impacts are identified, the CEQA Guidelines require a discussion of measures that could either avoid or substantially reduce any adverse environmental impacts to the greatest extent feasible. [CEQA Guidelines Section 15126.4].

The categories of environmental impacts to be studied in a CEQA document are established by CEQA (Public Resources Code Section 21000 et seq.), and the CEQA Guidelines, as codified in Title 14 California Code of Regulations Section 15000 et seq. Under the CEQA Guidelines, there are approximately 18 environmental categories in which potential adverse impacts from a project are evaluated. The South Coast AQMD, as lead agency, has taken into consideration the Appendix G environmental checklist form, but has tailored the 21 environmental topic areas to emphasize air quality assessment primarily by combining the "air quality" and "greenhouse gas emissions" areas into one section, combining the "cultural resources" and "tribal cultural resources" areas into one section, separating the "hazards and hazardous materials" factor into two sections: "hazards and hazardous materials" and "solid and hazardous waste," and folding the "utilities/service systems" area into other environmental areas such as "energy," "hydrology and water quality" and "solid and hazardous waste." For each environmental topic area, per CEQA Guidelines Section 15064.7(a), "a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." The South Coast AQMD has developed unique thresholds of significance for the determination of significance in accordance with CEOA Guidelines Section 15064.7(b).

#### **Proposed Project and Focus of Environmental Effects and Analysis**

As explained in Chapter 2, PAR 1135 has been primarily developed to update the NOx limits and compliance dates for the electricity generating facility located on Santa Catalina Island, with a specific focus on NZE and ZE technologies; this facility was referred to as Facility 2 in the November 2018 Final Mitigated SEA for Rule 1135. Compliance with PAR 1135 <u>may be achieved through a variety of equipment configurations. However, for the purpose of identifying worst-case impacts, the analysis in this chapter focuses on is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing existing microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries at this facility. However, representatives from the electricity generating facility located on Santa Catalina Island indicated that they are also considering other combinations of equipment replacements such as installing NZE propane engines instead of the linear generators and fuel cells but this combination would not represent a worst-case scenario and would be expected to have fewer impacts.</u>

Other changes are also proposed in PAR 1135 which are administrative in nature, such as the monitoring, reporting, and recordkeeping requirements for electric generating units located on Santa Catalina Island. These administrative components of PAR 1135 are not expected to require physical modifications that would create any secondary adverse environmental impacts for air quality or any other environmental topic area. Thus, the analysis in this SEA focuses only on the portion of PAR 1135 that would be expected to require physical modifications and their corresponding environmental effects.

The purpose of the November 2018 amendments to Rule 1135, the project upon which the currently proposed project, PAR 1135, is based, was to reduce NOx emissions from RECLAIM and non-RECLAIM electricity generating facilities which are owned or operated by an investorowned electric utility, a publicly owned electric utility, or have electric generating units with a combined generation capacity of 50 MW or more of electrical power for distribution in the state or local electrical grid system. The November 2018 Final Mitigated SEA for Rule 1135 analyzed the environmental impacts associated with the activities that six affected facilities (referred to as Facility 1, 2, 3, 4, 5, and 6) were expected to undertake to ensure compliance with amended Rule 1135. While the reduction of NOx emissions was expected to create an environmental benefit, the November 2018 amendments to Rule 1135 were anticipated to create potentially significant adverse environmental impacts for the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia. As such, mitigation measures were crafted to reduce the potentially significant adverse hazards and hazardous materials impacts to less than significant levels. To date, the construction activities undertaken in response to the 2018 amendments to Rule 1135 have been completed at Facilities 1, 4, and 5. Regarding Facility 6, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction and operational emissions associated with catalyst module replacement in SCR for their simple cycle turbine; however, this facility permanently shut down their turbine at the beginning of 2020. Therefore, the previously analyzed construction and operational emissions attributed to Facility 6 in the November 2018 Final Mitigated SEA have not occurred and will not occur in the future. Regarding Facility 3, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction emissions associated with removing three existing boilers and installing up to three new turbines with three new SCRs and one new aqueous ammonia storage tank. Instead, Facility 3 indicated that their repower project would shut down and remove their three existing boilers by January 1, 2024, and install a set of batteries and three new prime natural gas IC engines. Because Rule 1135 is not applicable to prime natural gas IC engines and batteries, Facility 3 will no longer be subject to Rule 1135. Therefore, of the six affected facilities identified as being subject to Rule 1135 in the November 2018 Final Mitigated SEA, only Facility 2 has yet to implement the physical modifications necessary to achieve the NOx emission limits contained in the 2018 amendments to Rule 1135. Regarding Facility 2, the November 2018 Final Mitigated SEA for Rule 1135 originally analyzed the environmental impacts associated with replacing five diesel engines with five new Tier 4 Final diesel engines to comply with a NOx emission limit of 13 tpy by January 1, 2026.

Rule 1135 was later amended on January 7, 2022 to specifically establish interim NOx limits (i.e., 50 tpy by January 1, 2024 and 45 tpy by January 1, 2025) for Facility 2 (i.e., the electricity generating facility located on Santa Catalina Island). These interim NOx limits from the 2022 amendments to Rule 1135 supplemented the initial NOx limit of 13 tpy by January 1, 2030 that was adopted in the November 2018 amendments to Rule 1135. Since the 2022 amendments to Rule 1135 were not expected to cause new physical modifications, no significant adverse impacts on the environment were identified. Thus, the South Coast AQMD Governing Board determined

on January 7, 2022 that the 2022 amendments to Rule 1135 were exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3); and a NOE was prepared pursuant to CEQA Guidelines Section 15062.

Currently, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. Table 1-1 shows the previous, current and proposed NOx emissions limits for the electric generating facility located on Santa Catalina Island as well their corresponding compliance dates.

While PAR 1135 is expected to have generally the same or similar effects that were previously examined in the November 2018 Final Mitigated SEA for Rule 1135, the air quality impacts from PAR 1135 will cause delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 24-hour average ambient air quality standards, and interim operational cancer risks which will be more severe than what was discussed in November 2018 Final Mitigated SEA. Thus, PAR 1135 contains new information of substantial importance relative to the topic of air quality which was not known and could not have been known at the time the November 2018 Final Mitigated SEA for Rule 1135 was certified. [CEQA Guidelines Section 15162(a)(3)].</u>

The purpose of this SEA, and this chapter in particular, is to compare the types of activities and environmental impacts subject to the Rule 1135 amendments that were previously analyzed in the November 2018 Final Mitigated SEA to the currently proposed changes which comprise PAR 1135. The CEQA Guidelines indicate that the degree of specificity required in a CEQA document depends on the type of project being proposed. [CEQA Guidelines Section 15146]. However, the detail of the environmental analysis for certain types of projects cannot be as great as for others. For this SEA, the baseline is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135, and the SEA tiers off of that previously conducted analysis. Lastly, because PAR 1135 proposes to amend an existing rule, this SEA is required to include the environmental analysis required by CEQA Guidelines Section 15187 which specifically pertains to the environmental review of rules and regulations.

Because PAR 1135 contains changes that would only adversely impact the topic of air quality, this SEA analyzes the potentially significant impacts specific to air quality. The analysis of the potentially significant air quality impacts in this chapter incorporates a "worst-case" approach. This approach entails the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. This method ensures that all potential effects of PAR 1135 are documented for the decision-makers and the public.

In addition, this chapter independently considers whether the proposed project would result in new significant impacts for any of the other environmental topic areas previously concluded in the November 2018 Final Mitigated SEA for Rule 1135 to have either no significant impacts or less

than significant impacts (with or without mitigation); however, none were identified. See Section 4.3 of this chapter for a description and the basis for this conclusion.

#### 4.1 POTENTIAL ENVIRONMENTAL IMPACTS FOUND TO BE SIGNIFICANT: AIR QUALITY AND GREENHOUSE GAS EMISSIONS IMPACTS

This chapter independently considers the currently proposed project (PAR 1135) and analyzes the incremental changes, if any, relative to the baseline established in the November 2018 Final Mitigated SEA for Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed environmental impacts associated with the potential modifications that may be expected to occur at six affected electricity generating facilities to comply with the BARCT emission limits in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 analyzed the environmental topic area of air quality and GHG emissions, and concluded that less than significant adverse impacts to air quality and GHG emissions would occur.

Thus, this section evaluates the potential air quality and GHG emission impacts for PAR 1135 and compares the previous air quality and GHG emission impacts analysis conducted in the November 2018 Final Mitigated SEA for Rule 1135.

#### 4.1.1 Significance Criteria

To determine whether air quality and GHG impacts from adopting and implementing the proposed project are significant, impacts will be evaluated and compared to the significance criteria on the following page. The significance thresholds for criteria pollutant emissions: the mass daily thresholds, were developed in 1993, and a full discussion can be found in the South Coast AQMD CEQA Handbook. Significance thresholds for toxic air contaminants and odor are based on requirements under Rules 1401 and 212, and 402 respectively. In December 2008, the Governing Board approved an interim GHG significance threshold for projects where the South Coast AQMD is lead agency. There has been ongoing development of the significance thresholds, and detailed discussion is available on the South Coast AQMD website.<sup>82</sup> A discussion regarding feasible mitigation measures is also included in this section. Significance determinations for construction impacts are based on the maximum or peak daily emissions during the construction period, which provides a "worst-case" analysis of the construction emissions. Similarly, significance determinations for operational emissions are based on the maximum or peak daily emissions during the operational phase. The proposed project will have significant adverse air quality impacts if any one of the thresholds in Table 4-1 are equaled or exceeded.

<sup>&</sup>lt;sup>82</sup> South Coast AQMD, 1993. <u>http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.</u>

	Mass Daily Thresholds <sup>a</sup>						
Pollutant	Construction	Operation					
NO <sub>x</sub>	100 lbs/day	55 lbs/day					
VOC	75 lbs/day	55 lbs/day					
PM10	150 lbs/day	150 lbs/day					
PM2.5	55 lbs/day	55 lbs/day					
SO <sub>x</sub>	150 lbs/day	150 lbs/day					
СО	550 lbs/day	550 lbs/day					
Lead	3 lbs/day	3 lbs/day					
Toxic Air Cont	aminants (TACs), Odor, and G	HG Thresholds					
TACs (including carcinogens and non- carcinogens) Odor	Maximum Incremental Cancer Risk $\geq 10$ in 1 millionCancer Burden > 0.5 excess cancer cases (in areas $\geq 1$ in 1 million)Chronic & Acute Hazard Index $\geq 1.0$ (project increment)						
GHG		suant to South Coast AQMD Rule 402 for industrial facilities					
	• Quality Standards for Criteria						
NO <sub>2</sub>							
1-hour average annual arithmetic mean <b>PM10</b> 24-hour average annual average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal) 10.4 µg/m <sup>3</sup> (construction) <sup>c</sup> & 2.5 µg/m <sup>3</sup> (operation)						
PM <sub>2.5</sub> 24-hour average		$^{ m cm}$ (operation)					
SO2 1-hour average 24-hour average		pm (federal – 99 <sup>th</sup> percentile) m (state)					
<b>Sulfate</b> 24-hour average	25 μg/r	n <sup>3</sup> (state)					
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)						
<b>Lead</b> 30-day Average Rolling 3-month average	$1.5 \ \mu\text{g/m}^3 \text{ (state)}$ $0.15 \ \mu\text{g/m}^3 \text{ (federal)}$						

 Table 4-1

 South Coast AQMD Air Quality Significance Thresholds

<sup>a</sup> Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

<sup>b</sup> Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.
 <sup>c</sup> Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY:lbs/day = pounds per dayppm = parts per million $\mu g/m^3$  = microgram per cubic meter $\geq$  = greater than or equal toMT/yr CO2eq = metric tons per year of CO2 equivalents> = greater than> = greater than

Revision: March 2023

#### Project-Specific Air Quality Impacts During Construction

For the electricity generating facility located on Santa Catalina Island, PAR 1135 proposes to: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024 to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina Island NZE and/or ZE electric generating units by January 1, 2030 or six months after any applicable extensions (with a three-year extension option to meet by January 1, 2033) with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting each of 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

This section of the SEA will evaluate the construction-related emissions associated with the expected physical modifications at the affected facility to achieve compliance with PAR 1135. Construction-related emissions can be distinguished as either onsite or offsite. Onsite emissions generated during construction principally consist of exhaust emissions (NOx, SOx, CO, VOC, PM2.5 and PM10) from heavy-duty construction equipment operation, fugitive dust (primarily as PM10) from disturbed soil, and VOC emissions from asphaltic paving and painting. Offsite emissions during the construction phase normally consist of exhaust emissions and entrained paved road dust (primarily as PM10) from worker commute trips, material delivery trips, and haul truck material trips to and from the construction site.

PAR 1135 will impact one electricity generating facility located on Santa Catalina Island (referred to as Facility 2 in the November 2018 Final Mitigated SEA). The November 2018 Final Mitigated SEA for Rule 1135 originally analyzed the environmental impacts associated with replacing five diesel engines with five new Tier 4 Final diesel engines at Facility 2 to comply with a NOx limit of 13 tpy by January 1, 2026. Rule 1135 was later amended on January 7, 2022 to specifically establish interim NOx limits (i.e., 50 tpy by January 1, 2024 and 45 tpy by January 1, 2025) for this facility. Currently, PAR 1135 proposes to: 1) remove the 50 tpy NOx limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2028 (with a potential extension up to three six years); and 4) include new NOx limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to

<u>three years</u>) and January 1, 2035 (with a potential extension up to <u>three six</u> years), respectively (see Table 1-1). Table 4-2 lists the expected physical modifications at Facility 2 to comply with PAR 1135 requirements.

i otonical i nysical i locality a to comply with third floo requirement							
Annual NOx Limit	Compliance date	Potential Physical Modifications					
<u>Stage 1:</u> 45 tpy	1/1/2027 (with a potential extension up to three years)	Replacement of two existing diesel engines with two new Tier 4 Final diesel engines					
<u>Stage 2:</u> 30 tpy	1/1/2028 <u>(with a</u> potential extension up to three years)	Replacement of one existing diesel engine with one new Tier 4 Final diesel engine					
<u>Stage 3:</u> 13 tpy	1/1/2030 (with a potential extension up to three six years)	Replacement of existing microturbines and three remaining diesel engines with five propane linear generators and three propane fuel cells <sup>*</sup>					
<u>Stage 4:</u> 6 tpy	1/1/2035 (with a potential extension up to three <u>six</u> years)	Installation of ZE technologies such as solar PV cells/batteries					

Table 4-2
Potential Physical Modifications at Facility 2 to Comply with PAR 1135 Requirements

\* Representatives from Facility 2 have indicated that they are considering installing NZE propane engines instead of the propane linear generators and propane fuel cells. However, no further details regarding this combination of equipment were provided.

According to Table 4-2, Facility 2 <del>compliance with PAR 1135</del> <u>has several options with varying</u> <u>equipment configurations which can be</u> achieved <u>compliance with PAR 1135 such as through</u> replacing three existing diesel internal combustion engine with three new Tier 4 Final diesel engines; replacing the remaining three existing diesel internal combustion engines and existing microturbines with five propane linear generators and three propane fuel cells; and installing ZE technologies such as solar PV cells.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy who owns the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. Thus, the analysis in this SEA focuses on the potential secondary adverse environmental impacts associated with the following physical modifications at Facility 2: 1) replacement of three diesel internal combustions engines and SCRs with three new Tier 4 Final diesel internal combustion engines and SCRs; and 2) replacement of the remaining three existing diesel internal combustion engines and existing microturbines with five propane

linear generators and three propane fuel cells. Moreover, the analysis assumes that the replacement of each diesel engine and SCR with new Tier 4 Final diesel engine and SCR, and installation of linear generators would occur sequentially to minimize power disruptions or reductions to the facility's customers during construction.

Based on a discussion with a vendor, the following assumptions were made in order to estimate construction impacts from installing a linear generator:

- Each linear generator unit is assumed to be transported to Santa Catalina Island via barge from the Port of Los Angeles.
- All construction equipment and materials would need to be delivered to the facility via barge. Due to the limited space available at the facility, the hauling, unloading, and staging of construction equipment and materials would not occur on the same day as construction to install a linear generator.
- Each phase of construction is assumed to require the following number of days: demolition 1 day, grading 1 day, and building construction 1 day; however, to provide a "worst-case" analysis, demolition and grading are assumed to occur on the same day.
- To remove the existing microturbines and install a linear generator, the following construction equipment and workers are assumed to be required:
  - Demolition: one tractor/loader/backhoe operating a maximum of four hours per day, a construction crew of six workers, and two waste haulers driving heavy-heavy duty trucks (HHDT).
  - Grading: a construction crew of four workers for pouring concrete, and two waste hauler trucks.
  - Building construction: one crane and one forklift operating a maximum of seven hours per day, a construction crew of six workers for rebar and frame placement, and one vendor driving a combination of heavy-heavy duty trucks and medium-heavy duty trucks (HHDT, MHDT).

Construction emissions for installing one linear generator at Facility 2 were estimated using the California Emission Estimator Model® version 2022.1.1.6 (CalEEMod). In addition, emissions from all on-road vehicles transporting workers, vendors, and material removal and delivery during construction were calculated using CalEEMod. The detailed output reports for the CalEEMod runs are included in Appendix B of this SEA. Because the installation of a fuel cell entails construction activities similar to those required for installing a linear generator, the construction emissions associated with installing a fuel cell were assumed to be equivalent to those of installing a linear generator.

This SEA relies on the previous analysis in the November 2018 Final Mitigated SEA regarding construction emissions from the replacement of an existing diesel engine and SCR with a new diesel engine and SCR. Furthermore, similar to the assumptions made in the November 2018 Final Mitigated SEA, PAR 1135 is assumed to cause one additional barge trip to Santa Catalina Island on a peak day to transport construction equipment and materials to Facility 2. The November 2018

Final Mitigated SEA for Rule 1135 previously estimated criteria pollutant and GHG emissions from the barge operating at that time as having one main engine (rated at 1800 horsepower (HP) and two 99 HP auxiliary engines. However, the electricity generating facility located on Santa Catalina Island provided data indicating that the current barge to Santa Catalina Island is equipped with three Caterpillar Tier III engines (each rated at 650 HP) and two 148 HP Tier III auxiliary engines. Compared to the analysis in the November 2018 Final Mitigated SEA for Rule 1135, the data provided by Facility 2 also includes a deterioration product and a substantially higher load factor (e.g., 85%) for the barge's main engines. South Coast AQMD reviewed the data provided by SCE and compared it to load factor data specific to barges from the Port of Los Angeles and Port of Long Beach, San Pedro Bay Ports Emission Inventory Methodology Report, Table 3.1: Harbor Craft Engine Load Factors,<sup>83</sup> which indicated that a load factor of 50% was more appropriate. Thus, a load factor of 50% was applied instead of 85% for the barge's main engines. The updated calculations of criteria pollutant and GHG emissions from barge trips are provided in Appendix C. Table 4-3 summarizes the results of the air quality analysis for the construction activities at Facility 2; the construction activities do not overlap as equipment will be introduced sequentially to minimize power disruptions or reductions to the facility's customers during construction. However, as a worst-case scenario, barge trips are assumed to occur on the same day as replacing an existing diesel engine with a new Tier 4 Final diesel engine. If Facility 2 decides to replace the existing microturbines and three remaining diesel engines with NZE propane engines in lieu of linear generators or fuel cells, no changes to peak daily construction emissions are anticipated in Table 4-3. This is because the physical modifications required for this replacement are expected to be similar to those involved in replacing an existing diesel engine with a new Tier 4 Final diesel engine. As shown in Table 4-3, the total peak daily construction emissions resulting from implementation of PAR 1135 would not exceed the South Coast AQMD's significance threshold for construction; however, the total peak daily construction emissions would be higher than what was analyzed in the November 2018 Final Mitigated SEA for Facility 2.

<sup>&</sup>lt;sup>83</sup> Port of Los Angeles and Port of Long Beach, San Pedro Bay Ports Emission Inventory Methodology Report, Version 4, August 2023, <u>https://kentico.portoflosangeles.org/getmedia/2f6e4e7c-6197-493b-bf3e-</u> e3b7ea26b6eb/SPBP Emissions Inventory Methodology v4.

Teak Dury Construction Emissions at Facility 2							
<b>Construction Activity</b>	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	
Removal of the Existing Microturbine and Installation of a Linear Generator or Fuel Cell <sup>a</sup>	0.45	4.47	4.02	0.01	0.26	0.19	
Replacement of an Existing Diesel Engine and SCR with a New Diesel Engine and SCR <sup>b</sup>	4.3	40	27	0.1	3.4	2.3	
1-Barge Round Trip to Transport Construction Equipment and Material to Facility 2 °	5.2	28.0	25.5	0.0	1.6	1.6	
<b>Total Peak Daily Construction</b> <b>Emissions (PAR 1135)</b> <sup>d</sup>	9.5	68.0	52.5	0.1	5.0	3.9	
Total Peak Daily ConstructionEmissions (November 2018Final Mitigated SEA)	4.3	40	27	0.1	3.4	2.3	
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55	
SIGNIFICANT?	NO	NO	NO	NO	NO	NO	

Table 4-3Peak Daily Construction Emissions at Facility 2

a. The emissions are estimated using CalEEMod version 2022.1.1.6 and include emissions from on-road vehicles and offroad construction equipment. Appendix C contains the detailed calculations.

b. From the November 2018 Final Mitigated SEA for Rule 1135.

c. Data provided by the electricity generating facility located on Santa Catalina Island, but the load factor for the main engines was adjusted from 85% to 50%.

d. Facility 2 is assumed to replace diesel engines and install linear generators/fuel cells in sequential order to maintain a sufficient amount of power to its customers without causing a service disruption or reduced power supplies. Thus, on a peak day, there will be either a diesel engine replacement or a linear generator/fuel cell installation. As a worst-case scenario, barge trips are expected to occur on the same day as the installation of one new engine or linear generator.

Although PAR 1135 is only expected to impact Facility 2, the November 2018 Final Mitigated SEA for Rule 1135 analyzed environmental impacts associated with the physical modifications at five other facilities as well (referred to as Facility 1, 3, 4, 5, and 6 in the November 2018 Final Mitigated SEA for Rule 1135) to comply with the November 2018 version of Rule 1135. Table 4-4 shows the updated peak daily construction emissions at Facility 2 due to PAR 1135 as well as the previously reported peak daily construction emissions for other facilities that were previously analyzed in the November 2018 Final Mitigated SEA and are not affected by PAR 1135.

Facility	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
<b>PAR 1135:</b> Facility 2	9.5	68.0	52.5	0.1	5.0	3.9
November 2018 Final Mitigated SEA: Facility 1	0.4	5.0	3.1	0.0	0.3	0.2
<b>November 2018 Final</b> <b>Mitigated SEA:</b> Facility 3	16	51	22	0.1	6.3	3.3
<b>November 2018 Final</b> <b>Mitigated SEA:</b> Facility 4	0.4	5.0	3.1	0.0	0.3	0.2
<b>November 2018 Final</b> <b>Mitigated SEA:</b> Facility 5	0.4	5.0	3.1	0.0	0.3	0.2
<b>November 2018 Final</b> <b>Mitigated SEA:</b> Facility 6	0.4	5.0	3.1	0.0	0.3	0.2

Table 4-4Total Peak Daily Construction Emissions for Facility 2 andOther Facilities Analyzed in the November 2018 Final Mitigated SEA for Rule 1135

The construction activities at Facilities 1, 4, and 5 in response to the NOx limits in Rule 1135 have already been completed. Regarding Facility 6, while the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction and operational emissions associated with catalyst module replacement in SCR of their simple cycle turbine, this facility permanently shut down their turbine at the beginning of 2020. Therefore, the previously analyzed construction and operational emissions for this facility in the November 2018 Final Mitigated SEA have not occurred and will not occur in the future. Regarding Facility 3, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction emissions associated with removing three existing boilers and installing up to three new turbines with three new SCRs and one new aqueous ammonia storage tank. However, Facility 3 later indicated that their repower project includes the shutting down and removal of their three existing boilers by January 1, 2024, and installing a set of batteries and three new prime natural gas IC engines. Because Rule 1135 does not apply to prime natural gas IC engines and batteries, this SEA will not analyze the air quality impacts associated with installing and operating such equipment at Facility 3. Based upon preceding discussion, construction activities at Facility 2 are not expected to overlap with any of the other five facilities that were previously analyzed in the November 2018 Final Mitigated SEA. Thus, based upon these considerations, less than significant adverse air quality impacts relating to construction are expected from implementing PAR 1135.

#### Project-Specific Air Quality Impacts During Operation

The November 2018 Final Mitigated SEA for Rule 1135 originally analyzed the environmental impacts associated with replacing five diesel engines with five new Tier 4 Final diesel engines at Facility 2 to comply with a NOx emission limit of 13 tpy by January 1, 2026. Rule 1135 was later amended in January 7, 2022 to specifically establish interim NOx emission limits (i.e., 50 tpy by January 1, 2024 and 45 tpy by January 1, 2025) for Facility 2.

Currently, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three

<u>years</u>); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. Table 1-1 shows the previous, current and proposed NOx emissions limits for the electric generating facility located on Santa Catalina Island as well their corresponding compliance dates.

It is important to note that the ongoing, needed maintenance of the electric generating units is an operational activity which already takes place at Facility 2 and is considered part of the existing setting. PAR 1135 does not impose new maintenance or testing requirements that would alter these requirements. Moreover, once Facility 2 completes the expected construction activities presented in Table 4-2 to attain each of the proposed annual NOx limits, there would be: 1) no increases to the amount of urea that is currently delivered, stored, and utilized; and 2) no change to the current maintenance schedule for replacing spent SCR catalyst. PAR 1135 is expected to incrementally increase the annual number of diesel-fueled barge trips from 300 to 329, 319, and 326 during the compliance periods associated with attaining the NOx limits of 45 tpy, 30 tpy, and 13 tpy, respectively. However, because Santa Catalina Island currently receives a maximum of up to two barge visits due to space limitations at the pier, no changes to the number of barge visits on a peak day are expected.

Nonetheless, implementation of the proposed project is expected to result in delayed NOx emission reductions due to: 1) removing the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delaying the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years), and 3) delaying the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three <u>six</u> years). If any extension is granted for the 13 tpyany NOx emission limits as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time. The emissions from the six prime power diesel internal combustion engines and other equipment located on Santa Catalina Island are currently 71.3 tons of NOx per year based on Annual Emission Report data. Figure 4-1 shows the delayed NOx emission reductions at Facility 2 due to the implementation of PAR 1135.

According to Figure 4-1, PAR 1135 will result the following delayed NOx emission reductions which vary by compliance year:

- 21.3 tpy (equal to 116.71 lb/day) from January 1, 2024 to January 1, 2025;
- 26.3 tpy (equal to 144.11 lb/day) from January 1, 2025 to January 1, 2026;
- 58.3 tpy (equal to 319.45 lb/day) from January 1, 2026 to January 1, 2027 (with a potential extension up to three years);
- 32 tpy (equal to 175.34 lb/day) from January 1, 2027 (with a potential extension up to three years) to January 1, 2028 (with a potential extension up to three years); and
- 17 tpy (equal to 93.15 lb/day) from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to three six years).

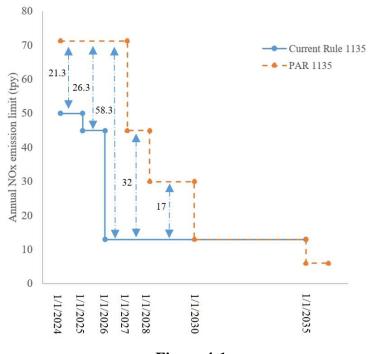


Figure 4-1 Delayed NOx Emission Reductions at Facility 2 due to PAR 1135

Overall, although the November 2018 Final Mitigated SEA for Rule 1135 identified no operational impacts at Facility 2 as part of implementing the 2018 version of Rule 1135, the delayed NOx emission reductions that will occur due to removing the 50 tpy NOx limit and from extending the compliance dates for the 45 and 13 tpy NOx emission limits in PAR 1135 would exceed the South Coast AQMD's daily NOx operational significance threshold of 55 pounds per day. Thus, the peak daily operational NOx emissions impacts at Facility 2 from implementing PAR 1135 are significant until January 1, 2030 (with a potential extension up to three six years) over the short-term, but less than significant after January 1, 2030 (with a potential extension up to three six years) over the long-term.

**Project-Specific Mitigation:** If significant adverse environmental impacts are identified, the CEQA document shall describe feasible measures that could minimize the significant adverse impacts of the proposed project. [CEQA Guidelines Section 15126.4]. Therefore, feasible mitigation measures for reducing operational NOx impacts are required. However, the reason PAR 1135 is proposing to update the annual NOx emission limits and compliance dates at Facility 2 is because the facility cannot feasibly attain the current annual NOx limits by the compliance dates adopted in the November 2018 and January 2022 versions of Rule 1135. In addition, PAR 1135 will eventually reduce the annual NOx limits from 13 tpy to 6 tpy by January 1, 2035 (with a potential extension up to three six years) which will result in an air quality and health benefit. Thus, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions to less than significant levels.

**Remaining Criteria Air Pollutant Impacts:** While operational air quality impacts for NOx emissions are expected to be significant for the interim compliance dates over the short-term (e.g.,

until January 1, 2030 (with a potential extension up to three <u>six</u> years), no feasible mitigation measures have been identified that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions to less than significant levels. Therefore, operational air quality impacts for NOx emissions are significant and unavoidable for the interim compliance dates. After January 1, 2030 (with a potential extension up to three <u>six</u> years), the peak daily operational NOx emissions impacts at Facility 2 will be less than significant over the long-term because the maximum NOx emission reductions will be realized.

#### Construction and Operation Overlap Impact

While PAR 1135 is only expected to require physical modifications at Facility 2, the November 2018 Final Mitigated SEA for Rule 1135 analyzed environmental impacts associated with the physical modifications anticipated at that time to occur at five other facilities as well (referred to as Facility 1, 3, 4, 5, and 6 in the November 2018 Final Mitigated SEA for Rule 1135) in order to attain the NOx limits in the November 2018 version of Rule 1135.

As explained earlier, construction activities undertaken in response to the 2018 amendments to Rule 1135 have been completed at Facilities 1, 4, and 5. Regarding Facility 6, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction and operational emissions associated with catalyst module replacement in SCR for their simple cycle turbine; however, this facility permanently shut down their turbine at the beginning of 2020. Therefore, the previously analyzed construction and operational emissions attributed to Facility 6 in the November 2018 Final Mitigated SEA have not occurred and will not occur in the future. Regarding Facility 3, the November 2018 Final Mitigated SEA for Rule 1135 analyzed construction emissions associated with removing three existing boilers, and installing up to three new turbines with three new SCRs and one new aqueous ammonia storage tank. Instead, Facility 3 indicated that their repower project would shut down and remove their three existing boilers by January 1, 2024, and install set of batteries and three new prime natural gas IC engines. Because Rule 1135 is not applicable to prime natural gas IC engines and operational impacts associated with installing and running such equipment at Facility 3.

Based upon the preceding discussion, the most conservative scenario for construction and operation overlap would occur if: 1) Facility 2 is undergoing peak daily construction activities to replace one of the diesel engines with a new Tier 4 Final diesel engine; 2) peak delayed NOx emission reductions of 58.3 tpy (319.45 lb/day) occur at Facility 2 from January 1, 2026 to January 1, 2027 (with a potential extension up to three years) (see Figure 4-1); and 3) Facilities 1, 4, and 5 are undergoing operational activities. According to South Coast AQMD policy, in the event that there is an overlap of construction and operation phases, the peak daily emissions from the construction and operation overlap period should be summed and compared to the South Coast AQMD's air quality significance thresholds for operation because the latter are more stringent, and thus, more conservative. As such, peak daily emissions in construction and operation overlap phase are presented in Table 4-5 and the total peak daily emissions have been compared to the air quality significance thresholds for operation.

Peak Daily Emissions in Construction and Operation Overlap Phase							
Construction and Operation Overlap Phase	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	
PAR 1135: Peak daily							
Construction Emissions at Facility	9.5	68.0	52.2	0.1	5.0	3.9	
2 (see Table 4-3)							
PAR 1135: Peak Delayed NOx							
Emission Reductions at Facility 2	N/A	319.45	N/A	N/A	N/A	N/A	
(see Figure 4-1)							
November 2018 Final Mitigated							
<b>SEA:</b> Peak Operational Emissions	0.08	0.52	0.34	0.00	0.03	0.02	
at Facility 1							
November 2018 Final Mitigated							
<b>SEA:</b> Peak Operational Emissions	0.08	0.52	0.34	0.00	0.03	0.02	
at Facility 4							
November 2018 Final Mitigated							
<b>SEA:</b> Peak Operational Emissions	0.08	0.52	0.34	0.00	0.03	0.02	
at Facility 5							
Total Overlapping Emissions	9.74	389.01	53.22	0.10	5.09	3.96	
SIGNIFICANCE THRESHOLD	75	==	550	150	150	55	
FOR OPERATION	75	55	550	150	150	55	
SIGNIFICANT?	NO	YES	NO	NO	NO	NO	

Table 4-5Peak Daily Emissions in Construction and Operation Overlap Phase

The calculated emissions in Table 4-5 are likely an overestimation because they do not take into account the operational emission reductions from Facilities 1, 4, and 5 that have been occurring since the facilities made their modifications. These modifications not only offset the facilities' daily operational emissions, but also offset the peak daily impacts from Facility 2.

As indicated in Table 4-5, the peak daily emissions during the construction and operational overlap period would exceed the South Coast AQMD's air quality significance thresholds for operation. Therefore, the proposed project is expected to result in significant adverse air quality impacts during the construction and operation overlap period.

#### Ambient Air Quality Impacts During Operation

Table 4-6 lists the power generation configurations at Facility 2 for each stage of the proposed annual NOx emission limits in PAR 1135.

r AK 1155 I Toposeu Emission Stages, and Generation Comiguration								
Annual NOx	Compliance	Anticipated Equipment to Meet	<b>Power Generation</b>					
Limit (tpy)	Date	Emission Limit	<b>Distribution</b> (%)					
1/1/2027 Two New Tier 4 Final Diesel En		Two New Tier 4 Final Diesel Engines	72					
	<u>(with a</u>	Existing Diesel IC Engines	25					
Stage 1. 15	potential							
<u>Stage 1:</u> 45	extension up	Existing Propane Microturbines	3					
	to three	Existing I topane wheroturomes	5					
	<u>years)</u>							
	1/1/2028	Three New Tier 4 Final Diesel Engines	88					
	<u>(with a</u>	Existing Diesel IC Engines	9					
<u>Stage 2:</u> 30	<u>potential</u>							
<u>510ge 2.</u> 50	extension up	Existing Propane Microturbines	3					
	to three	Existing Propule Microturomes	5					
	<u>years)</u>							
	1/1/2030	Three New Tier 4 Final Diesel Engines	52					
	(with a							
<u>Stage 3:</u> 13	potential	NZE (e.g., Five Propane Linear						
<u>biage 5.</u> 15	extension up	Generators and Three Propane Fuel	48					
	to <u>six</u> three	Cells <sup>*</sup> )						
	years)							
	1/1/2035	Three New Tier 4 Final Diesel Engines	22					
	(with a	NZE (e.g., Five Propane Linear						
<u>Stage 4:</u> 6	potential	Generators and Three Propane Fuel	48					
<u>51426 7.</u> 0	extension up	Cells <u>*</u> )						
	to <del>three <u>six</u></del>	ZE	30					
	years)	· · · · · · · · · · · · · · · · · · ·	50					

Table 4-6						
PAR 1135 Proposed Emission Stages, and Generation Configuration						

**.**...

\* Representatives from Facility 2 have indicated that they are considering installing NZE propane engines instead of the propane linear generators and propane fuel cells. However, no further details regarding this combination of equipment were provided.

An Air Quality Impact Analysis (AQIA) was completed to evaluate whether criteria pollutant concentrations from the operation of newly installed power generation units (i.e., Tier 4 Final diesel engines and NZE units) listed in Table 4-6 would cause or contribute significantly to an exceedance of the CAAQS or NAAQS. The American Meteorological Society (AMS)/EPA Regulatory Model (AERMOD) was used to simulate the atmospheric transport and dispersion of airborne pollutants and to quantify the maximum expected ground-level concentrations (GLCs) from project emissions. The modeling approach and inputs, including meteorological data and background air quality data, are described in greater detail in Appendix D of this SEA. Table 4-7 summarizes the results of the AQIA for criteria pollutants after meeting the proposed annual NOx limits in PAR 1135.

			45 tpy NOx Limit 30 tpy NOx Limit 13 tpy NOx Limit <sup>a</sup> 6 tpy NOx Limit						x Limit <sup>a</sup>	
Standard	Allowed Limit	Background	Modeled Level	Total Level <sup>b</sup>	Modeled Level	Total Level <sup>b</sup>	Modeled Level	Total Level <sup>b</sup>	Modeled Level	Total Level <sup>b</sup>
NO2 CAAQS, 1 hr (max)	339	57.1°	92.88	149.98	170.28	227.38	100.62	157.72	42.57	99.67
NO2 CAAQS (NAAQS), annual	57 (100)	9.4	7.68	17.08	14.08	23.48	8.32	17.72	3.52	12.92
PM2.5 24-hr NAAQS and PM10 24-hr CAAQS <sup>d</sup>	2.5	11	1.584	1.684 <sup>e</sup>	2.904	3.004 <sup>e</sup>	1.716	1.816 <sup>e</sup>	0.726	0.826 <sup>e</sup>
PM10 24-hr NAAQS	150	58 <sup>f</sup>	1.584	59.68 <sup>e</sup>	2.904	3.004 <sup>e</sup>	1.716	1.816 <sup>e</sup>	0.726	0.826 <sup>e</sup>
PM10 annual <del>CAAQS<sup>d</sup></del>	1		0.1728	0.1728 <sup>e</sup>	0.3168	0.3168 <sup>e</sup>	0.1872	0.1872 <sup>e</sup>	0.0792	0.0792 <sup>e</sup>
CO CAAQS (NAAQS), 1 hr	23,000 (40,000)	1,145	413.76	1,559	758.56	1,904	448.24	1593.24	189.64	1334.64

 Table 4-7

 AQIA for Criteria Pollutants After Meeting the Proposed Annual NOx Limits in PAR 1135

			45 tpy NO	5 tpy NOx Limit30 tpy NOx Limit13 tpy NOx Limita			Dx Limit         30 tpy NOx Limit         13 tpy NOx Limit <sup>a</sup> 6 tpy NOx Limit		x Limit <sup>a</sup>	
Standard	Allowed Limit	Background	Modeled Level	Total Level <sup>b</sup>	Modeled Level	Total Level <sup>b</sup>	Modeled Level	Total Level <sup>b</sup>	Modeled Level	Total Level <sup>b</sup>
CO CAAQS (NAAQS), 8-hr	10,000 (10,000)	916	209.28	1,125	383.68	1,300	226.72	1142.72	95.92	1011.92
SO2 CAAQS, 1-hr (max)	655	7.9	1.92	10	3.52	11	2.08	9.98	0.88	8.78
SO2 NAAQS, 1-hr (99th percentile)	196	7.9	1.44	9	2.64	11	1.56	9.46	0.66	8.56
SO2 CAAQS, 24-hr	105	2.5	0.72	3	1.32	4	0.78	3.28	0.33	2.83

 Table 4-7 (concluded)

 AQIA for Criteria Pollutants After Meeting the Proposed Annual NOx Limits in PAR 1135

<sup>a</sup> Although NZE units are expected to be operated in addition to the three new Tier 4 Final diesel engines to meet the 13 tpy and 6 tpy NOx limits, this AQIA only evaluated the criteria pollutant concentrations from the operation of three new diesel engines. Since the AQIA results for meeting the 13 tpy and 6 tpy NOx limits are much lower than the air quality significance threshold, the addition of NZE units is not expected to result in significant operational air quality impacts.

<sup>b</sup> To estimate the ambient concentrations of criteria pollutants, background concentrations were added to the AERMOD outputs.

<sup>c</sup> Even though time-varying NO2 backgrounds are included in the model results, the maximum background was added to the scaled up NO2 concentrations.

<sup>d</sup> Due to nonattainment designations for PM2.5 and PM10, only the Significant Change in Concentration (no-without background) is used relied upon to compare against the <u>air quality significance thresholds</u>standard.

<sup>e</sup> Added the U.S. EPA's Modeled Emission Rates for Precursors (MERPs)-estimated daily and annual average secondary PM2.5 of 0.1 and 0.003 µg/m³, respectively

<sup>f</sup> Staff used the 4<sup>th</sup> highest PM10 daily average from the South Long Beach monitor, measured between 2019-2021. This was used instead of the El-Rio monitor in Ventura County, since Los Angeles County is currently in attainment with the PM10 NAAQS.

According to Table 4-7, the project-specific changes in ambient the 24-hour average concentrations of PM2.5 and PM10 criteria pollutants would exceed the 24-hr PM2.5 and PM10 air quality significance thresholds during the operation of newly installed units to meet the 30 tpy NOx limits by January 1, 2028 (with a potential extension up to three years). Although the electricity generating facility located on Santa Catalina Island is expected to operate NZE units in addition to the three new Tier 4 Final diesel engines to meet the existing NOx limit of 13 tpy and the proposed NOx limit of 6 tpy, this AQIA only evaluated the criteria pollutant concentrations from the operation of three new diesel engines. Since the AQIA results for meeting the 13 tpy and 6 tpy NOx limits are much lower than the applicable air quality significance thresholds, the addition of NZE units is not expected to result in significant operational air quality impacts. Overall, significant operational air quality impacts are expected at Facility 2 over the shortterm from January 1, 2028 (with a potential extension up to three years) until January 1, 2030 (with a potential extension up to three six years) due to exceedance of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10-air quality significance thresholds. After January 1, 2030 (with a potential extension up to three six years), these thresholds will not be exceeded.

Project-Specific Mitigation: If significant adverse environmental impacts are identified, the CEQA document shall describe feasible measures that could minimize the significant adverse impacts of the proposed project. [CEQA Guidelines Section 15126.4]. Therefore, feasible mitigation measures for reducing project-specific changes in the 24-hour average operational concentrations of 24-hr-PM2.5 and PM10 are required. However, as noted above, project-specific changes in the 24-hour average concentrations of #-PM2.5 and PM10 concentrations only exceed the air quality significance thresholds over the short-term (i.e., two years from January 1, 2028 (with a potential extension up to three years) until January 1, 2030 (with a potential extension up to six years)) and no further exceedances are expected when meeting 13 tpy NOx limit by January 1, 2030 (with a potential extension up to three-six years). Moreover, PAR 1135 will eventually reduce the NOx limit from 13 tpy to 6 tpy by January 1, 2035 (with a potential extension up to three-six years) which will result in an overall air quality and health benefit. Thus, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 concentrations to less than significant levels for the period from January 1, 2028 (with a potential extension up to three years) until January 1, 2030 (with a potential extension up to three six years).

**Remaining Ambient Air Quality Impacts:** While operational air quality impacts for <u>project-specific changes in the 24-hour average concentrations of</u> PM2.5 and PM10 <del>concentrations are</del> expected to be significant over the short-term of two years, no feasible mitigation measures have been identified that would eliminate or reduce the significant adverse operational air quality impacts for <u>project-specific changes in the 24-hour average concentrations of</u> PM2.5 and PM10 <del>concentrations to</del> less than significant levels for the period from January 1, 2028 (with a potential <u>extension up to three years</u>) until January 1, 2030 (with a potential extension up to <u>three six years</u>). Therefore, operational air quality impacts for <u>project-specific changes in the 24-hour average concentrations of</u> PM2.5 and PM10 <del>concentrations are significant</del> and unavoidable for the period from January 1, 2028 (with a potential extension up to three <u>six years</u>). Therefore, operational air quality impacts for <u>project-specific changes in the 24-hour average concentrations of</u> PM2.5 and PM10 <del>concentrations are</del> significant and unavoidable for the period from January 1, 2028 (with a potential extension up to three <u>six years</u>). However, after January 1, 2030 (with a potential extension up to three <u>six years</u>), these thresholds will not be exceeded.

#### Toxic Air Contaminants

#### Health Risk Assessment During Construction

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed health risk impacts associated with the expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to attain the NOx limits for electric power generating units in the November 2018 version of Rule 1135. As noted earlier, PAR 1135 is only expected to result in physical modifications at Facility 2 through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the three remaining existing diesel internal combustion engines and microturbines with NZE power producing engines (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries. Diesel particulate matter (DPM) is considered a carcinogenic and chronic TAC that can be emitted from on- and off-road construction equipment at affected facilities by PAR 1135. However, since the on- and off-road diesel equipment that may be used at PAR 1135-affected facilities are expected to be needed over a short-term period during construction, a Health Risk Assessment (HRA) was not conducted. While the entire construction period, expected to span several years (from the adoption of PAR 1135 until 2035), will include sequential phases such as replacing three diesel engines with three new Tier 4 engines, replacing existing diesel internal combustion engines and microturbines with NZE technologies, and installing ZE technologies, each phase will occur with a gap of several months before the next upcoming phase. Moreover, as noted earlier, the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction period. Thus, the quantity of pollutants that may be generated during construction from implementing PAR 1135 would not be considered substantial, irrespective of whether sensitive receptors are located near the affected facilities. For these reasons, implementation of PAR 1135 is not expected to expose sensitive receptors to substantial pollutant concentrations during the construction phase at Facility 2.

#### Health Risk Assessment During Operation

A health risk analysis was prepared for PAR 1135 to evaluate health risk impacts due to operational TAC emissions from the newly installed power generation units listed in Table 4-6 (i.e., Tier 4 Final diesel engines and NZE units). Additional details on the methodology and results of HRA are provided in Appendix D of this SEA. Table 4-8 summarizes the results of the health risk evaluation of the operational emissions for all receptor types which include the point of maximum impact (PMI), the maximally exposed individual workplace (MEIW), and the maximum sensitive receptors. It should be noted that in a worst-case approach, the health risk impacts associated with operation of each of the three new Tier 4 Final diesel engines were calculated separately and summed up to provide an estimate of the total health risk impacts for the proposed project.

<b>Operation of Newly Installed Units</b>	Receptor Type	Cancer Risk	Chronic Hazard	Significance Threshold		SIGNIFICANT	
Operation of Newry Instance Units	Кесерког туре	(in a million)	Index (HI)*	Cancer Risk	Chronic HI	?	
	PMI	10.64	0.00				
Stage 1: Two New Tier 4 Final Diesel	MEIW	3.38	0.01			YES	
Engines (72% of Electricity Load)	Maximum Sensitive Receptor	0.39	0.00			1 2.5	
	PMI	19.39	0.00				
Stage 2: Three New Tier 4 Final Diesel	MEIW	6.35	0.02			YES	
Engines (88% of Electricity Load)	Maximum Sensitive Receptor	0.72	0.00	10 in a		1 25	
Stops 2. Three New Tier 4 Final Dissel	PMI	11.46	0.00	million	1.0		
<b>Stage 3:</b> Three New Tier 4 Final Diesel	MEIW	3.75	0.01			YES	
Engines (52% of Electricity Load) & NZE Units (48% of Electricity Load) <sup>**</sup>	Maximum Sensitive Receptor	0.43	0.00			1 ES	
Stage 4: Three New Tier 4 Final Diesel	PMI	4.85	0.00				
Engines (22% of Electricity Load),	MEIW	1.59	0.00			NO	
NZE Units (48% of Electricity Load) & ZE Tech (30% of Electricity Load) <sup>***</sup>	Maximum Sensitive Receptor	0.18	0.00				

Table 4-8Operational Health Risk Assessment

\* There is no acute Reference Exposure Level (REL) for DPM, so the Acute HI is not applicable.

\*\*Although Stage 3 entails the operation of NZE units (to provide 48% of total electricity load), the PMI cancer risks are already greater than the significance threshold due to the operation of three new Tier 4 Final diesel engines (to provide 52% of electricity load). Thus, similar to Stages 1 and 2, the health risk impacts remain significant for Stage 3.

\*\*\*Since the HRA results after meeting the final 6 tpy NOx limit are much less than the air quality significance threshold for health risk, the addition of NZE units (to provide 48% of the electricity load) is not expected to result in significant impacts from toxic air contaminants.

As shown in Table 4-8, the estimated cancer risks from the operation of newly installed units at Facility 2 to comply with the 45 tpy and 30 tpy NOx limits exceed the air quality significance threshold for health risk of 10 in one million. Although the electricity generating facility located on Santa Catalina Island is expected to operate NZE units (to provide 48% of electricity load) in addition to the three new Tier 4 Final diesel engines (to provide 52% of electricity load) to meet the existing NOx limit of 13 tpy, this HRA only evaluated the health risk impacts from the operation of three new diesel engines. Nonetheless, the estimated PMI cancer risks are significant due to the operation of the three new Tier 4 Final diesel engines. On the other hand, since the HRA results for operation of Tier 4 Final diesel engines (to provide 22% of electricity load) to meet the final 6 tpy NOx limit are much less than the air quality significance threshold for health risk, the addition of NZE units is not expected to result in overall significant impacts from toxic air contaminants.

# Conclusion – Toxic Air Contaminants: Significant operational impacts from toxic air contaminants are expected at Facility 2 when operating equipment to comply with the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits. However, less than significant operational impacts from toxic air contaminants are expected once Facility 2 meets the 6 tpy NOx limit.

**Project-Specific Mitigation:** If significant adverse environmental impacts are identified, the CEQA document shall describe feasible measures that could minimize the significant adverse impacts of the proposed project. [CEQA Guidelines Section 15126.4]. Therefore, feasible mitigation measures for reducing operational impacts from toxic air contaminants are required. However, the reason PAR 1135 is proposing to update the annual NOx emission limits and compliance dates at Facility 2 is because the facility cannot feasibly attain the current annual NOx limits by the compliance dates adopted in the November 2018 and January 2022 version of Rule 1135. Moreover, although compliance with the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits results in significant operational impacts from toxic air contaminants for Stages 1, 2 and 3, less than significant operational impacts from toxic air contaminants once Facility 2 meets the 6 tpy NOx limit on and after January 1, 2035 (with a potential extension up to three six years) (e.g., at Stage 4). Thus, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational impacts from toxic air contaminants to less than significant levels for Stages 1, 2 and 3.

**Remaining Criteria Air Pollutant Impacts:** While operational impacts from toxic air contaminants are expected to be significant at Facility 2 when making modifications to attain the proposed 45 tpy, 30 tpy, and 13 tpy NOx limits during Stages 1, 2 and 3, respectively, no feasible mitigation measures have been identified that would eliminate or reduce these significant adverse operational impacts to less than significant levels for Stages 1, 2 and 3. Therefore, the operational impacts from toxic air contaminants are significant and unavoidable for Stages 1, 2 and 3. However, when Facility 2 meets the 6 tpy NOx limit on and after January 1, 2035 (with a potential extension up to three six years) (e.g., at Stage 4), less than significant operational impacts from toxic air contaminants are expected.

#### **Odor Impacts**

The air quality significance threshold for odor is whether the project creates an odor nuisance pursuant to South Coast AQMD Rule 402. Odor problems depend on individual circumstances. For example, individuals can differ quite markedly from the populated average in their sensitivity to odor due to any variety of innate, chronic or acute physiological conditions. This includes

olfactory adaptation or smell fatigue (i.e., continuing exposure to an odor usually results in a gradual diminution or even disappearance of the smell sensation).

With regard to odors, for all diesel-fueled equipment and vehicles that may be used during construction and operation at the affected facility, the diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weight or less) in accordance with South Coast AQMD Rule 431.2 - Sulfur Content of Liquid Fuels and such fuel is expected to minimize odor. Further, construction equipment will be primarily utilized within the confines of the facility and dispersion of diesel emissions over distance generally occurs so that odors associated with diesel emissions may not be discernable to offsite receptors, depending on the location of the equipment and its distance relative to the nearest offsite receptor. The diesel trucks that may be used during both construction and operation activities will be operated on road until arriving at the facility. Once on-site, the diesel trucks will not be allowed to idle longer than five minutes at any one location in accordance with the CARB idling regulation, so odors from these vehicles would not be expected for a prolonged period of time. Therefore, the addition of several pieces of construction equipment and trucks that will operate intermittently over a relatively short period of time, are not expected to generate diesel exhaust odor substantially greater than what is already typically present at the affected facility.

With regard to barge trips for transporting construction equipment, fuel, and material to Facility 2, the operation of the barge will occur over a short period of time (less than one day) and dispersion of diesel emissions over distance generally occurs so that odors associated with diesel emissions may not be discernable to nearby receptors, especially since the barge would be traveling across the ocean. Therefore, operation of the barge is not expected to create objectionable odors affecting a substantial number of people.

Gasoline fueled passenger vehicles will primarily be utilized to transport construction workers to and from the facility during construction. The quantity of gasoline fueled passenger vehicles used as part of the proposed project is relatively low when compared to the total population of passenger vehicles within the South Coast AQMD. Also, the gasoline fueled passenger vehicles would be used over a relatively short period of time and are not expected to generate gasoline exhaust odor substantially greater than what is already typically present on existing roadways. Thus, PAR 1135 is not expected to create significant adverse objectionable odors during construction or operation.

### Conclusion – Odors: Based on preceding discussion, less than significant odor impacts are expected from PAR 1135 during construction and operation.

Project-Specific Mitigation: Since less than significant odor impacts were identified for construction and operation, no mitigation measures are necessary or required.

**Remaining Odor Impacts:** With less than significant odor impacts identified during construction and operation such that no mitigation measures are necessary or required, **air quality impacts relative to odors remain less than significant**.

#### 4.1.2 Cumulative Air Quality Impacts

Pursuant to CEQA Guidelines Section 15130(a), the SEA shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. In general, the preceding analysis concluded that significant adverse environmental impacts may occur during

Stages 1, 2 and 3 for the topic of air quality during operation due to interim delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 ambient air quality standards</u>, and interim health risk impacts. In addition, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions, <u>project-specific changes in the 24-hour average concentrations of -PM2.5 and PM10-ambient concentrations</u>, and health risk to less than significant levels for Stages 1, 2 and 3. Thus, the air quality impacts due to operations during Stages 1, 2 and 3 are cumulatively considerable pursuant to CEQA Guidelines Section 15064(h)(1) and therefore, generate significant adverse cumulative air quality impacts.

The analysis also indicates that the proposed project will result in less than significant increases of all criteria air pollutants during the construction phase of the proposed project. Moreover, there will be less than significant increases to odor impacts. Pursuant to CEQA Guidelines Section 15130(a)(2), when the combined cumulative impact associated with the project's incremental effect is not significant, the SEA must indicate why the cumulative impact is not significant. Because construction emissions and odor impacts do not exceed the air quality significance thresholds, which also serve as the cumulative significance thresholds, they are not considered to be cumulatively considerable. [CEQA Guidelines Section 15064 (h)(1)].

This identical standard is appropriate because the South Coast AQMD air quality significance thresholds for criteria pollutants were set by evaluating the effect an individual project may have on the ability of the South Coast Air Basin to attain the NAAQS established by the U.S. EPA, and are therefore, cumulative in nature. Specifically, the South Coast AQMD Governing Board adopted 1993 CEQA Air Quality Handbook, which identified that the thresholds for criteria pollutants are based on the emissions levels in the Clean Air Act for a major source in an area designated as extreme non-attainment for ozone. [1993 CEQA Handbook, Chapter 6]. So, for example, a major source of VOC emissions, a precursor for ozone, is defined as a source that has a potential to emit at least 10 tons per year of VOC. [Federal Clean Air Act Section 182(e)]. The South Coast AQMD converted the 10 tons per year in terms of pounds per day, which resulted in a significance threshold of 55 pounds per day for operational emissions. The 1993 CEQA Handbook also explains that this approach is appropriate because the regulatory framework to establish the state and federal ambient air quality standards, and the method to achieve attainment of those standards, are intended to be protective of public health.

**Conclusion – Cumulative Air Quality Impacts:** The operational air quality impacts relative to NOx emissions, <u>changes in the ambient-24-hour average concentrations of</u> PM2.5 and PM10 <del>concentrations and</del> health risks are cumulatively considerable because: 1) the peak daily NOx operational impacts associated with the delayed NOx emission reductions exceed the South Coast AQMD's significance threshold for NOx during operation <u>until meeting the 13 tpy NOx limit by</u> January 1, 2030 (with a potential extension up to six years)<del>during Stages 1, 2 and 3</del>; 2) <u>changes in the ambient-24-hour average concentrations of</u> PM2.5 and PM10 <del>concentrations exceed the South Coast AQMD's significance threshold from January 1, 2028 (with a potential extension up to three years)</del> to January 1, 2030 (with a potential extension up to three <u>six</u> years); and 3) the operational cancer risk impacts exceed the South Coast AQMD's significance threshold from January 1, 2028 (with a potential extension up to three six years); and 3) the operational cancer risk impacts exceed the South Coast AQMD's significance threshold from January 1, 2028 (with a potential extension up to three six years); and 3) the operational cancer risk impacts exceed the South Coast AQMD's significance threshold when meeting the 45 tpy, 30 tpy, and 13 tpy NOx limits in PAR 1135 during Stages 1, 2 and 3; and 4) there are no feasible mitigation measures that would eliminate or reduce the temporary significant adverse operational air quality impacts for NOx emissions, <u>changes in the ambient-24-hour average</u> operational air quality impacts for NOx emissions, <u>changes in the ambient-24-hour average</u> operational air quality impacts for NOx emissions, <u>changes in the ambient-24-hour average</u> operational air quality impacts for NOx emissions, <u>changes in the ambient-24-hour average</u> operational air quality impacts for NOx emissions, <u>changes in the ambient-24-hour average</u> operational air quality impacts for NOx emissions, <u>changes in the ambient-24-hour average</u> operatio

<u>concentrations of PM2.5 and PM10 concentrations</u>, and health risks to less than significant levels during Stages 1, 2 and 3. However, when Facility 2 meets the 6 tpy NOx limit on and after January 1, 2035 (with a potential extension up to <u>three six</u> years) (e.g., at Stage 4), less than significant cumulative air quality impacts are expected.

Cumulative Mitigation: No feasible mitigation measures are available that would eliminate or reduce the temporary cumulatively considerable operational air quality impacts for NOx emissions, <u>changes in the ambient</u> 24-hour <u>average concentrations of PM2.5</u> and PM10 <del>concentrations</del>, and health risks to less than significant levels during Stages 1, 2 and 3. Cumulatively considerable impacts during Stage 4 are not expected due to the emission reduction goals of PAR 1135 being fully realized.

Remaining Cumulative Air Quality Impacts: While operational air quality impacts for NOx emissions, <u>changes in the ambient</u> 24-hour <u>concentrations of</u> PM2.5 and PM10 <del>concentrations</del>, and health risks are cumulatively significant during Stages 1, 2 and 3, no feasible mitigation measures have been identified that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions, <del>ambient changes in the 24-hour average concentrations of</del> PM2.5 and PM10 <del>concentrations and health risks to less than significant levels during Stages 1, 2 and 3. Therefore, the cumulative operational air quality impacts for NOx emissions, <u>changes in the ambient</u> 24-hour average concentrations, changes in the <u>ambient</u> 24-hour average concentrations of PM2.5 and PM10 <del>concentrations</del>, and health risks remain significant and unavoidable during Stages 1, 2 and 3. However, when Facility 2 meets the 6 tpy NOx limit on and after January 1, 2035 (with a potential extension up to three six years) (e.g., at Stage 4), no remaining cumulative air quality impacts are expected.</del>

#### 4.1.3 Greenhouse Gas Impacts and Mitigation Measures

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6). [Health and Safety Code Section 38505(g)]. The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects.<sup>84</sup>

<sup>&</sup>lt;sup>84</sup> Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: <u>https://web.stanford.edu/group/efmh/jacobson/Articles/V/CO2SOM0310.pdf</u>, accessed July 23, 2024.

The analysis of GHGs is a different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long time-frame. As a result, the South Coast AQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

The South Coast AQMD convened a "Greenhouse Gas CEQA Significance Threshold Working Group" to consider a variety of benchmarks and potential significance thresholds to evaluate GHG impacts. On December 5, 2008, the South Coast AQMD adopted an interim CEQA GHG Significance Threshold for projects where South Coast AQMD is the lead agency (South Coast AQMD, 2008). This interim threshold is set at 10,000 metric tons of CO2 equivalent emissions (MT/yr of CO2eq). The South Coast AQMD prepared a "Draft Guidance Document – Interim CEQA GHG Significance Thresholds" that outlined the approved tiered approach to determine GHG significance of projects (South Coast AQMD, 2008, pg. 3-10). The first two tiers involve: 1) exempting the project because of potential reductions of GHG emissions allowed under CEQA; and 2) demonstrating that the project's GHG emissions are consistent with a local general plan. Tier 3 proposes a limit of 10,000 MT/yr CO2eq as the incremental increase representing a significance threshold for projects where South Coast AQMD is the lead agency (South Coast AQMD, 2008, pp. 3-11). Tier 4 (performance standards) is yet to be developed. Tier 5 allows offsets that would reduce the GHG impacts to below the Tier 3 brightline threshold. Projects with incremental increases below this threshold will not be cumulatively considerable.

The main focus of PAR 1135 is to update annual NOx emission limits and compliance dates for the electric generating facility located on Santa Catalina Island (referred to as Facility 2 in the November 2018 Final Mitigated SEA for Rule 1135) with a specific focus on NZE and ZE technologies. As noted earlier, compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining three diesel internal combustion engines and existing microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries. During the construction phase at Facility 2, additional barge trips are necessary to transport construction, material, and power producing units to Santa Catalina Island. Therefore, GHG emission impacts from implementing PAR 1135 were calculated at the project-specific level according to the above-noted construction activities. While this SEA calculates constructionrelated GHG emissions for replacing existing microturbines and three remaining diesel engines with five linear generators and three fuel cells as potential NZE units, representatives from Facility 2 have indicated that they are considering installing NZE propane engines instead of propane linear generators and propane fuel cells. However, minimal changes in construction-related GHG emissions are expected due to installing NZE propane engines in lieu of propane linear generators and propane fuel cells.

During operation, compliance with PAR 1135 is expected to increase the number of required diesel-fueled barge trips for fuel delivery to Facility 2 from 300 (the previous estimate in

November 2018 Final Mitigated SEA for Rule 1135) to 329, 319, and 326 to comply with the annual NOx limits of 45, 30, and 13 tpy, respectively. Incremental changes in operational GHG emissions from power producing units are estimated for meeting the 45 tpy, 30 tpy, 13 tpy, and 6 tpy NOx limits based on the data provided by Facility 2. Facility 2 provided calculations showing GHG emissions if petroleum diesel is used and if renewable diesel is used (both are presented in Appendix C) but estimates based on petroleum diesel usage are incorporated for the comparison against the GHG significance threshold. Facility 2 also reported their 2023 GHG emissions to be 23,516 MT CO<sub>2</sub>e; while CARB has not published the 2023 GHG emissions data, the 2022 GHG emissions from implementing PAR 1135, the 2023 CARB GHG emissions data was subtracted from the peak annual GHG emissions which corresponded to Stage 1 (e.g., the 45 tpy by January 1, 2027 (with a potential extension up to three years)). Thus, the operational GHG impacts from implementing PAR 1135 are also calculated at the project-specific level associated with above operational activities.

Table 4-9 summarizes the GHG analysis, which shows that the implementation of PAR 1135 may result in the generation of 4.33 amortized<sup>86</sup> MT/yr of CO2e emissions during construction and 1099.57 MT/yr of CO2e emissions during operation from all the affected facilities, which is less than the South Coast AQMD's air quality significance threshold of 10,000 MT/yr of CO2e for GHGs. Detailed calculations of project GHG emissions can be found in Appendix C. It should be noted that similar to criteria pollutant analysis, the construction-related and operation-related GHG emissions from Facilities 1, 4, and 5 are also included in Table 4-9.

Activity	CO2e (MT/year <sup>a</sup> )
<b>PAR 1135:</b> Construction <sup>b</sup> – on-road vehicles, barges, and off-road equipment	4.33
<b>PAR 1135:</b> Operation- on-road vehicles, barges, and incremental changes in operational GHG emissions from power producing equipment at Facility 2	1099.57
<b>PAR 1135:</b> Total project emissions <sup>c</sup>	1103.90
November 2018 Final Mitigated SEA: Total project emissions <sup>d</sup>	126.35
SIGNIFICANCE THRESHOLD	10,000
SIGNIFICANT?	NO

Table 4-9GHG Emissions from PAR 1135

a. 1 metric ton=2,205 pounds

b. GHG from short-term construction activities are amortized over 30 years.

c. Total GHG emissions for PAR 1135 refer to construction and operation-related activities at Facilities 1, 2, 4, and 5.

d. Total GHG emission in the November 2018 Final Mitigated SEA refer to construction and operation-related activities at six facilities, including Facilities 1, 2, 3, 4, 5, and 6.

**Conclusion – GHG Impacts:** As shown in Table 4-9, the South Coast AQMD GHG significance threshold will not be exceeded. For this reason, implementing the proposed project is not expected to generate significant adverse GHG air quality impacts. Further, PAR 1135 is not expected to

 <sup>&</sup>lt;sup>85</sup> CARB, Mandatory GHG Reporting, 2022 GHG Facility and Entity Emissions (11/6/2023), <u>https://ww2.arb.ca.gov/mrr-data</u>.
 <sup>86</sup> GHGs from short-term construction activities are amortized over 30 years. To amortize GHGs from temporary construction

<sup>&</sup>lt;sup>6</sup> GHGs from short-term construction activities are amortized over 30 years. To amortize GHGs from temporary construction activities over a 30-year period (*est. life of the project/ equipment*), the amount of CO2e emissions during construction is calculated and then divided by 30.

generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG gases. **Thus, PAR 1135 will have less than significant GHG impacts.** 

Project-Specific Mitigation: Since less than significant GHG emissions impacts were identified, no mitigation measures are necessary or required.

Conclusion – Cumulative GHG Impacts: Since PAR 1135 will have less than significant GHG impacts, GHG impacts are not also cumulatively considerable.

**Remaining Cumulative GHG Impacts:** Since GHG impacts are not expected from PAR 1135 and thus, are not considered to be cumulative considerable, there are no remaining cumulative GHG impacts.

## 4.2 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

CEQA Guidelines Section 15126(c) requires an environmental analysis to consider "any significant irreversible environmental changes which would be involved if the proposed action should be implemented." This Draft SEA identified that interim delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10 ambient air quality standards</u>, and interim health risk impacts would cause significant and unavoidable adverse environmental impacts to air quality from operation if PAR 1135 is implemented. However, upon full implementation, PAR 1135 will reduce the annual NOx limits from 13 tpy to 6 tpy on and after January 1, 2035 (with a potential extension up to three six years), which will provide air quality and health benefits.

# 4.3 OTHER ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT

CEQA requires this section of the SEA to identify the environmental topic areas that were analyzed and concluded to have no impacts or less than significant impacts, if the proposed project is implemented. For the effects of a project that were determined not to be significant, CEQA Guidelines Section 15128 requires the analysis to contain a statement briefly indicating the reasons that various effects of a project were determined not to have significant impacts and were therefore not discussed in detail.

PAR 1135 will impact one electricity generating facility located on Santa Catalina Island (referred to as Facility 2 in the November 2018 Final Mitigated SEA for Rule 1135) by proposing to: 1) update NOx emission limits and compliance dates; 2) establish provisions for monitoring, reporting, and recordkeeping for NZE electric generating units without CEMS; 3) extend the deadline for prohibiting the installation of new diesel internal combustion engines from January 1, 2024 to January 1, 2028 or six months after any applicable extensions; 4) prohibit the installation of more than three new diesel internal combustion engines with a cumulative rating of 5.5 MW; 5) prohibit the installation of equipment that does not meet the definition of a Santa Catalina Island NZE electric generating unit or a Santa Catalina Island ZE electric generating unit after January 1, 2028 or six months after any applicable extensions; 6) require the installation of Santa Catalina

Island NZE and/or ZE electric generating units by January 1, 2030<u>or six months after any</u> applicable extensions (with a three-year extension option to meet by January 1, 2033) with a minimum cumulative rating of 1.8 MW, excluding the highest rated Santa Catalina Island NZE and/or ZE electric generating unit, solar photovoltaic cells, and battery storage; 7) remove all prime power diesel internal combustion engines for which installation was completed earlier than Date of Adoption from service by January 1, 2030 or six months after any applicable extensions; 8) require a feasibility analysis (e.g., progress in procuring and installing electric generating units) to be conducted for the 13 tpy and six tpy NOx emission limits by January 1, 2028 and January 1, 2033, respectively; and 9) update the time extension provision by including more specific criteria needed for approval, allowing the electricity generating facility located on Santa Catalina Island to request time extensions for extenuating circumstances (e.g., unforeseen construction interruptions and/or supply chain disruptions) for each compliance date or according to the feasibility analyses for meeting each of 13 tpy and six tpy NOx emission limits, and making requests for time extensions available for public review.

Thus, this subchapter of the SEA identifies the environmental topic areas that were previously analyzed in the November 2018 Final Mitigated SEA for six affected facilities (including Santa Catalina Island electricity generating facility, referred to as Facility 2) and concluded to have either less than significant impacts (with or without mitigation) or no impacts (e.g., aesthetics; agriculture and forestry resources; air quality and GHG emissions, biological resources; cultural resources; energy, geology and soils; hazards and hazardous materials; hydrology and water quality; land use and planning; mineral resources; noise; population and housing; public services; recreation; solid and hazardous waste; and transportation and traffic). For all environmental topic areas except air quality and GHG emissions which is discussed and further analyzed in Section 4.1 of this chapter, this section assesses whether these previously evaluated environmental topic areas in the November 2018 Final Mitigated SEA would be affected by PAR 1135. Also, since two new environmental topic areas, tribal cultural resources and wildfire, were added to the CEQA Guidelines after the November 2018 Final Mitigated SEA for Rule 1135 was certified, this section examines whether the PAR 1135 would contribute to any impacts on tribal cultural resources and wildfires.

#### Environmental Topic Areas Previously Concluded In the November 2018 Final Mitigated SEA To Have No Impacts

The following environmental topic areas were previously analyzed and concluded in the November 2018 Final Mitigated SEA for Rule 1135 to have no impacts: aesthetics; agriculture and forestry resources; biological resources; cultural resources; geology and soils; hydrology and water quality; land use and planning; mineral resources; population and housing; and recreation.

This SEA independently considers the PAR 1135 and analyzes the incremental changes, if any, relative to the baseline which is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135. When comparing the types of activities and environmental impacts subject to the November 2018 version of Rule 1135 as previously analyzed in the November 2018 Final Mitigated SEA for Rule 1135 to the currently proposed project (PAR 1135), similar impacts to the same environmental topic areas that were previously analyzed are expected to occur for all of the environmental topic areas analyzed except air quality and GHG emissions which is discussed in Sections 4.1 and 4.2 of this chapter. For this reason, the incremental changes associated with implementing the proposed project will not be expected to alter the previous conclusions reached

in the November 2018 Final Mitigated SEA for Rule 1135 for the environmental topic areas which were identified as having no impacts (aesthetics; agriculture and forestry resources; biological resources; cultural resources; geology and soils; hydrology and water quality; land use and planning; mineral resources; population and housing; and recreation). Therefore, since no impacts to these environmental topic areas would occur if the PAR 1135 implemented, they are not further evaluated in this SEA. A brief summary of the previous conclusions reached as well as the reasoning why the no impact conclusions would remain the same for PAR 1135 is provided for each of the aforementioned environmental topic areas.

It is important to note that the Draft SEA for PAR 1135 included a summary from the November 2018 Final Mitigated SEA for Rule 1135 stating that there were no impacts for the topic of hydrology and water quality. However, the conclusion in the November 2018 Final Mitigated SEA for Rule 1135 indicated less than significant hydrology and water quality impacts. For this reason, the summary of hydrology and water quality impacts has been relocated from this section to "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have Less Than Significant Impacts."

#### **Aesthetics**

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed aesthetics impacts associated with the expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no aesthetics impacts would occur because: 1) required construction equipment is not expected to be substantially discernable from what typically exists on-site for conducting routine operations and maintenance activities in these electricity generating facilities; 2) the majority of construction equipment that may be needed is expected to be relatively low in height and not substantially visible to the surrounding area due to existing fencing along the property lines and existing structures currently within the facilities that may buffer the views of the construction activities; 3) most of the heavy equipment and construction activities are expected to occur within the confines of each existing facility property and are expected to introduce only minor visual changes to areas outside each electricity generating facility, if at all, depending on the location of the construction activities within each facility; 4) any new equipment that is installed would be expected to blend in with the existing industrial profile of these electricity generating facilities because the modified and/or replaced equipment will be at the same or similar heights of the existing equipment and surrounding structures; and 5) the construction activities are expected to be temporary in nature and any construction equipment that has been rented will be removed from each facility following completion of the modifications.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. Further, it is important to note that the environmental topic area of aesthetics will need to be evaluated by the land use authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing boundary of Facility 2, and in a similar fashion and with similar construction equipment as to what was analyzed for the November 2018 version of Rule 1135. Thus, the same reasoning for why the November 2018 Final Mitigated SEA for Rule 1135 concluded that no aesthetic impacts would occur, also applies to PAR 1135. Therefore, the previous conclusion of no impact to aesthetics in the November 2018 Final Mitigated SEA for Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Agriculture and Forestry Resources

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed agriculture and forestry resources impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating unit in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no agriculture and forestry resources impacts would occur since compliance with the November 2018 version of Rule 1135 would not result in the loss of forest land, conversion of farmland to non-agricultural use or conflict with zoning for agriculture use.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation

needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. Further, it is important to note that the environmental topic area of agriculture and forestry resources will need to be evaluated by the land use authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing boundary of Facility 2, and in a similar fashion and with similar construction equipment as to what was analyzed for the November 2018 version of Rule 1135, and these ongoing activities will not require the use of forest land, conversion of farmland to non-agricultural use, or conflict with zoning for agriculture use. Thus, the previous conclusion of no impact to agriculture and forestry resources reached in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### **Biological Resources**

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed biological resources impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no biological resources impacts would occur because these activities would occur inside the boundaries of existing developed and established industrial facilities which have been previously cleared of vegetation and have already been paved for safety and fire prevention reasons and as such, would not result in or have the potential to result in the removal of vegetation with potential to support wildlife.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be

speculative and will not be evaluated further in this SEA. Further, it is important to note that the environmental topic area of biological resources will need to be evaluated by the land use authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing boundary of Facility 2 which has been previously cleared of vegetation and has already been paved for safety and fire prevention reasons. Thus, PAR 1135 would not be expected to result in, or have the potential to result in, the removal of vegetation with potential to support wildlife. Therefore, the previous conclusion of no impact to biological resources in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Cultural Resources

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed cultural resources impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no cultural resources impacts would occur since the construction-related activities are expected to be confined within the existing footprint of the affected facilities that have been fully developed and paved such that no physical changes to the environment which may disturb paleontological, archaeological, or historical resources would occur. For the same reason, the analysis in the November 2018 Final Mitigated SEA for Rule 1135 also concluded that no site, feature, place cultural landscape, sacred place, or object with cultural value to a California Native American Tribe would be disturbed.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. Further, it is important to note that the environmental topic area of cultural resources will need to be evaluated by the land use

authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing footprint of Facility 2 which has been fully developed, previously cleared of vegetation and has already been paved for safety and fire prevention reasons, such that there will be no physical changes to the environment which may cause disturbance to archaeological or historical resources or human remains. Furthermore, it is envisioned that these areas are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed. Thus, PAR 1135 has no potential to cause a substantial adverse change to a historical or archaeological resource, and no potential to directly or indirectly disturb any human remains, including those interred outside formal cemeteries. Therefore, the previous conclusion of no impact to cultural resources in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### **Geology and Soils**

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed geology and soils impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the NOx limits in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no geology and soils impacts would occur because the affected facilities are located in developed industrial-zoned settings and:

- (1) relatively minor site preparation activities may be required prior to installing equipment and these activities would occur within facility boundaries. Nevertheless, the degree of site preparation that may be needed would not be on a scale that could adversely affect geophysical conditions.
- (2) the anticipated physical modifications of electric power generating units and their associated air pollution control equipment at affected facilities was expected to conform to stringent requirements in the Uniform Building Code and all other applicable state and local building codes, which consider seismic design requirements and liquefaction potential for constructing foundations in areas potentially subject to liquefaction;
- (3) the expected physical modifications would require no alteration to the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards;
- (4) substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated;
- (5) people or property will not be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal; and
- (6) all of the affected facilities have existing wastewater treatment systems so no soil changes associated with the installation of septic tanks or alternative wastewater disposal system would occur;

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. It is important to note that the environmental topic area of geology and soils will need to be evaluated by the land use authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing boundary of Facility 2 such that the same reasoning as listed in items 1) through 6) for why no geological and soils impacts would occur for the November 2018 amendments to Rule 1135 would also apply to the proposed project. Therefore, the previous conclusion of no impact to geology and soils in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Hydrology and Water Quality

It is important to note that the Draft SEA for PAR 1135 included a summary from the November 2018 Final Mitigated SEA for Rule 1135 stating that there were no impacts for the topic of hydrology and water quality. However, the conclusion in the November 2018 Final Mitigated SEA for Rule 1135 indicated less than significant hydrology and water quality impacts. For this reason, the summary of hydrology and water quality impacts has been relocated from this section to "Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have Less Than Significant Impacts."

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed hydrology and water impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no hydrology and water impacts would occur because the November 2018 version of Rule 1135.

- (1) generate wastewater and would not trigger the need for an adequate wastewater capacity determination by any wastewater treatment provider that may be serving each affected facility;
- (2) require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities;
- (3) violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Publicly Owned Treatment Works (POTW) or Regional Water Quality Control Board, or otherwise substantially degrade water quality;
- (4) utilize groundwater, substantially deplete groundwater supplies, or interfere substantially with groundwater recharge;
- (5) require a determination by the water providers which currently serve the affected facilities that there would be adequate existing capacity to provide water;
- (6) alter the course of a stream or river, existing drainage patterns or the procedures for how surface runoff water is handled; and
- (7) result in placing houses or structures within 100-year flood hazard areas that could create new flood hazards or create significant adverse risk impacts from flooding as a result of failure of a levee or dam or inundation by seiches, tsunamis, or mudflows;

Similar to the November 2018 version of Rule 1135, compliance activities under PAR 1135 would not require water (and generate wastewater) and the same reasoning as listed in items 1) through 7) for why no hydrology and water impacts would occur also apply to the proposed project. Therefore, the previous conclusion of no impact to hydrology and water in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Land Use and Planning

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed land use and planning impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no land use and planning impacts would occur because the expected physical modifications to meet the BARCT emission limits would occur within the boundary of existing industrial facilities and:

- 1) Physical division of an established community would not be expected.
- 2) There would be no conflict with any applicable land use plan, policy, or regulation due to the absence of an agency with jurisdiction over the Rule 1135.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. It is important to note that the environmental topic area of land use and planning will need to be evaluated by the land use authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing boundary of Facility 2 such that the same reasoning as listed in items 1) and 2) for why no land use and planning impacts would occur as a result of the November 2018 amendments to Rule 1135 also apply to the proposed project. Therefore, the previous conclusion of no impact to land use and planning in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Mineral Resources

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed mineral resources impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no impacts to mineral resources would occur because compliance with the November 2018 version of Rule 1135 would not result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as gravel, asphalt, bauxite, gypsum, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

None of the compliance activities necessary to implement PAR 1135 would require the use of a known mineral resource. Thus, PAR 1135 would also not result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, the previous conclusion of no impact to mineral resources in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Population and Housing

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed population and housing impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that no population and housing impacts would occur because:

- 1) The construction activities at the affected facilities are relatively minimal such that they would not be expected to require the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population;
- 2) The physical modifications expected to take place at electricity generating facilities would not require new employees to operate and maintain the equipment because each of the affected facilities already have existing electric power generating units in place with personnel trained to maintain the equipment; and
- 3) The November 2018 version of Rule 1135 would not create any industry that would affect population growth, directly or indirectly induce the construction of housing units, or require the displacement of persons or housing elsewhere in the South Coast AQMD.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

Consistent with previous conclusion, the same reasoning as listed in items 1) through 3) for why no population and housing impacts would occur also applies to PAR 1135. Therefore, the

previous conclusion of no impact to population and housing in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### **Recreation**

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed recreation impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA concluded that no recreation impacts would occur because the November 2018 version of Rule 1135 would not:

- 1) directly or indirectly increase or redistribute population;
- 2) increase the use of existing neighborhood and regional parks or other recreational facilities; and
- 3) include recreational facility or require the construction of new or the expansion of existing recreational facilities that might have an adverse physical effect on the environment.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

The affected facilities who need to perform any construction activities to comply with PAR 1135 can draw from the existing labor pool in the local Southern California area. Further, the expected physical modifications by PAR 1135 would not be expected to require new employees to operate and maintain the equipment because the affected facilities already have existing electric power generating units in place with personnel trained to maintain the units. There are also no provisions in PAR 1135 that would affect or increase the demand for or use of existing neighborhood and regional parks or other recreational facilities. In addition, PAR 1135 would not require the construction of new or the expansion of existing recreational facilities that might, in turn, cause adverse physical effects on the environment because PAR 1135 will not directly or indirectly substantively increase or redistribute population. Therefore, consistent with the previous conclusion in the November 2018 Final Mitigated SEA for Rule 1135, PAR 1135 would not result in any recreation impacts as summarized in items 1) through 3). Therefore, the previous conclusion of no impact to recreation in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Tribal Cultural Resources and Wildfire

At the time the November 2018 Final Mitigated SEA for Rule 1135 was certified, the environmental checklist did not include tribal cultural resources and wildfires as environmental topic areas to be evaluated. However, in 2019, these two environmental topic areas, were added to the environmental checklist in the CEQA Guidelines. To make the analysis of environmental

impacts consistent with these changes to the environmental checklist, Tables 4-10 and 4-11 provide the environmental checklist questions for both of these additional topic areas and an analysis of whether the proposed project would be expected to contribute to impacts on tribal cultural resources and wildfire, respectively.

Tribal Cultural Resources: Would the project:	ANALYSIS AND CONCLUSION
<ul> <li>Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074, as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is either:</li> <li>Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k)?</li> <li>A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code §5024.1(c)? (In applying the criteria set forth in Public Resources Code §5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.)</li> </ul>	<b>No Impact.</b> As noted earlier in this SEA, it would be speculative to analyze the potential land acquisition for solar PV cell installation outside of the footprint of the electric generating facility on Santa Catalina Island. Therefore, activities undertaken in response to PAR 1135 will continue to occur within the footprint of Facility 2 which has been fully developed and paved. PAR 1135 is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe. However, as part of releasing the November 2018 Final Mitigated SEA for Rule 1135 for public review and comment, South Coast AQMD provided a formal notice to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). Furthermore, the proposed project is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. Similarly, the proposed project is not expected to result in aphysical change to a resource determined by the South Coast AQMD to be significant to any tribe. For these reasons, the proposed project is not expected to result in Public Resources Code Section 21074.

Table 4-10Evaluation of Tribal Cultural Resources Impacts

Based on the analysis presented in Table 4-10, PAR 1135 would not be expected to have any impacts on tribal cultural resources.

WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	ANALYSIS AND CONCLUSION
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<b>No Impact.</b> Facility 2 is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. In the November 2018 Final Mitigated SEA for Rule 1135, the response to question f) in Section VIII – Hazards and Hazardous Materials, poses the same question and the analysis concluded that the project analyzed in November 2018 Final Mitigated SEA for Rule 1135 would have no impact on any adopted emergency response plan or emergency evacuation plan. Because the previous conclusion of less than significant impact to hazard and hazardous materials reached in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to the proposed project, implementation of the proposed project would also not be expected to substantially impair an adopted emergency response plan or emergency evacuation plan.
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<b>No Impact.</b> Facility 2 is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. Facility 2 is located on Santa Catalina Island in an established industrial area which is not near wildlands. In the event of a wildfire, no exacerbation of wildfire risks, and no consequential exposure of the project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors would be expected to occur.

Table 4-11
<b>Evaluation of Wildfire Impacts</b>

WILDFIRE:If located in or near stateresponsibility areas or landsclassified as very high firehazardseverityzones,would the project:	ANALYSIS AND CONCLUSION
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<b>No Impact.</b> As noted earlier in this SEA, it would be speculative to analyze the potential land acquisition for solar PV cell installation outside of the footprint of the electric generating facility on Santa Catalina Island. Therefore, activities undertaken in response to PAR 1135 will continue to occur within the footprint of Facility 2, which is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. Also, because the proposed project does not require any construction beyond the existing facility footprint, the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment are not required and would not be expected to occur.
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<b>No Impact.</b> Facility 2 is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. In the November 2018 Final Mitigated SEA for Rule 1135, the response to question c) in Section VII – Geology and Soils, poses a similar question relative to landslides and the analysis concluded that the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135 would have no impact. Also, the response to question f) in Section IX –Hydrology and Water Quality of the same document, poses a similar question relative to flooding and the analysis concluded that the project analyzed for Rule 1135 would have no impact. Also, the response to question f) in Section IX –Hydrology and Water Quality of the same document, poses a similar question relative to flooding and the analysis concluded that the project analyzed in November 2018 Final Mitigated SEA for Rule 1135 would have no impact. Because the previous conclusion of no impact to geology and soils and hydrology and water quality reached in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to the proposed project, PAR 1135 would also not be expected to expose people or structures to new significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

## Table 4-11 (continued)Evaluation of Wildfire Impacts

WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	ANALYSIS AND CONCLUSION	
e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildfires?	<b>No Impact.</b> Facility 2 is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. In the November 2018 Final Mitigated SEA for Rule 1135, the response to question g) in Section VIII – Hazards and Hazardous Materials, poses essentially the same question and the analysis concluded that the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135 would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Because the previous conclusion of less than significant impact to hazards and hazardous materials in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to the proposed project, implementation of PAR 1135 would also not be expected to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildfires.	

## Table 4-11 (concluded)Evaluation of Wildfire Impacts

Based on the analysis presented in Table 4-11, PAR 1135 would not be expected to have any impacts on wildfires.

#### Environmental Topic Areas Previously Concluded in the November 2018 Final Mitigated SEA To Have Less Than Significant Impacts

The following environmental topic areas were previously analyzed in the November 2018 Final Mitigated SEA for Rule 1135 to have less than significant impacts with or without mitigation: air quality and greenhouse gas emissions; energy; hazards and hazardous materials; hydrology and water quality; noise; public services; solid and hazardous waste; and transportation and traffic.

The following discussion independently considers the currently proposed project and analyzes the incremental changes, if any, relative to the baseline which is the project analyzed in the November 2018 Final Mitigated SEA for Rule 1135, in order to determine if the previous conclusions of less than significant impacts for the environmental topic areas of air quality and greenhouse gas emissions; energy; hazards and hazardous materials; hydrology and water quality; noise; public services; solid and hazardous waste; and transportation and traffic need to be changed.

#### Air Quality and Greenhouse Gas Emissions

The November 2018 Final Mitigated SEA for Rule 1135 previously concluded less than significant air quality and greenhouse gas emissions impacts from the expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Specifically, PAR 1135 proposes to : 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2030 (with a potential extension up to three six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. For Facility 2, compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries.

Sections 4.1 and 4.2 of this SEA analyze the proposed project's air quality and GHG impacts and conclude that significant adverse environmental impacts may occur for the topic of air quality during operation due to interim delayed NOx emission reductions, interim exceedances of the <u>air quality significance thresholds for project-specific changes in the 24-hour average concentrations of</u> PM2.5 and PM10 ambient air quality standards, and interim health risk impacts.

#### <u>Energy</u>

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed energy impacts associated with the potential modifications that may be expected to occur at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA concluded less than significant energy impacts because the November 2018 version of Rule 1135 would not:

- 1) conflict with any adopted energy conservation plans or violate any energy conservation standards because affected facilities would be expected to continue implementing any existing energy conservation plans;
- result in the loss of utility systems because the affected facilities would continue to generate the same amount of electricity after the completion of the modifications and new equipment installations. Post-project, the new equipment will continue to be able to handle local and regional needs as well as peak demands;
- 3) result in the need for new or substantially altered power or natural gas utility systems; and

4) cause significant adverse impact on gasoline and diesel fuel supplies during construction and operation.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Specifically, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three-six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. For Facility 2, compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries. As noted in Subchapter 4.1, compliance with PAR 1135 is expected to increase the number of required diesel-fueled barge trips for fuel delivery to Facility 2 from 300 (the previous estimate in November 2018 Final Mitigated SEA for Rule 1135) to 329, 319, and 326 to comply with annual NOx limits of 45, 30, and 13 tpy, respectively. Thus, compared to what was analyzed in November 2018 Final Mitigated SEA for Rule 1135, 29 additional barge trips are expected on a peak year for fuel delivery to Santa Catalina Island (the city of Avalon).

The November 2018 Final Mitigated SEA for Rule 1135 also analyzed the energy impacts associated with the additional barge trips required for transporting construction equipment and diesel engines to Facility 2. Compared to what was analyzed in the November 2018 Final Mitigated SEA for Rule 1135, implementation of PAR 1135 will require 42 additional diesel-fueled barge trips to transport construction equipment and NZE technologies (i.e., five linear generators and three fuel cells) to and from the Port of Los Angeles to Santa Catalina Island (the city of Avalon). Appendix C shows the detailed calculations of diesel fuel consumption by the barge activities. In addition, due to minimal construction and demolition activities, installing linear generators/fuel cells is not expected to result in higher gasoline and diesel consumption than what was previously analyzed for the replacement of diesel combustion engines with new Tier 4 engines in the November 2018 Final Mitigated SEA for Rule 1135.

Table 4-12 summarizes the projected fuel use impacts associated with the proposed changes at Facility 2. The 2016 California Annual Retail Fuel Outlet Report Results from the California Energy Commission (CEC) stated that 749 million gallons of diesel and 6,997 million gallons of gasoline were consumed in 2016 in the Basin. Therefore, according to Table 4-12, while implementing the proposed project might result in incremental increases in total gasoline and diesel fuel consumption, the increases are well below the South Coast AQMD significance threshold of 1% of baseline fuel supply. Thus, no significant adverse impact on fuel supplies would be expected during construction and operation. Therefore, the same reasoning for why the November 2018 Final Mitigated SEA for Rule 1135 concluded that less than significant energy impacts would occur also applies to PAR 1135 and there is no change to the overall less than significant conclusion of energy impacts if the proposed project is implemented.

Fuel Type	Phase	Expected Incremental Increases in Fuel Consumption by PAR 1135 (mmgal)	Estimated Consumption Analyzed in the November 2018 Final Mitigated SEA (mmgal)	Estimated Consumption by PAR 1135 (mmgal)	Percent Above Baseline	Significant?
Diesel	Construction	0.0201	0.0772	0.0973	0.0130	NO
	Operation	0.0139	0.0017	0.0156	0.0021	NO
Gasoline	Construction		0.0007	0.0007	0.00001	NO
	Operation					

Table 4-12Total Projected Fuel Usage for Construction and Operation Activities by PAR 1135

#### Hazards and Hazardous Materials

The November 2018 Final Mitigated SEA for Rule 1135 previously concluded less than significant (after mitigation) hazards and hazardous materials impacts associated with the potential modifications that may be expected to occur at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits in the November 2018 version of Rule 1135. The analysis in the November 2018 Final Mitigated SEA for Rule 1135 concluded that there would be:

- 1) no new significant hazards to the public or environment through the routine transport, storage, use, and disposal of hazardous materials (e.g., aqueous ammonia or urea) at affected facilities; no new significant hazard (after mitigation) to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment; no new hazardous emissions, or new or increased handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school; or no significant increase in fire hazard in areas with flammable materials.
- 2) no changes in how the hazardous materials are stored at affected facilities while awaiting to be transported off-site to a recycling facility or a hazardous waste landfill; no changes in how affected facilities comply with their current hazardous waste handling practices for any facilities that are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code Section 65962.5. In fact, any facility that is subject to the requirements in Government Code Section 65962.5 would still be required need to comply with any regulations relating to that code section.
- 3) no new safety hazards would be expected to people working or residing in the vicinity of public/private airports.
- 4) no impairment of the implementation of or physically interference with an adopted emergency response plan or emergency evacuation plan.
- 5) no significant exposure to people or structures to risk of loss, injury or death involving wildland fires.

Facility 2 currently receives deliveries of urea, and stores and converts it to aqueous ammonia on-site as part of existing operations for their SCR system. The amount of urea that may be needed by Facility 2 as a result of PAR 1135 is not expected to increase, and the current quantity of urea and frequency of deliveries to Facility 2 should be sufficient. Thus, there will be no increase in the number of peak daily truck trips and no new significant transportation impacts associated with deliveries of urea to Facility 2 will be expected to occur. In addition, when compared to what was previously analyzed in the November 2018 Final Mitigated SEA for Facility 2, the amount of urea delivery, storage, and use would remain the same or decrease as a result of the proposed changes by PAR 1135 since three new Tier 4 Final diesel combustion engines along with NZE and ZE technologies would operate to achieve 6 tpy NOx emission limit instead of the previously analyzed five new Tier 4 Final diesel engines in the November 2018 Final Mitigated SEA for Rule 1135.

Therefore, consistent with previous conclusion, the same reasoning as listed in items 1) through 5) for why less than significant hazards and hazardous materials impacts would occur also applies to PAR 1135. Thus, the previous conclusion of less than significant impacts to hazards and hazardous materials in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Hydrology and Water Quality

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed hydrology and water impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA for Rule 1135 concluded that less than significant hydrology and water impacts would occur because the November 2018 version of Rule 1135 would not:

(1) generate wastewater and would not trigger the need for an adequate wastewater capacity determination by any wastewater treatment provider that may be serving each affected facility;

(2) require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities;

(3) violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Publicly Owned Treatment Works (POTW) or Regional Water Quality Control Board, or otherwise substantially degrade water quality;

(4) utilize groundwater, substantially deplete groundwater supplies, or interfere substantially with groundwater recharge;

(5) require a determination by the water providers which currently serve the affected facilities that there would be adequate existing capacity to provide water;

(6) alter the course of a stream or river, existing drainage patterns or the procedures for how surface runoff water is handled; and

(7) result in placing houses or structures within 100-year flood hazard areas that could create new flood hazards or create significant adverse risk impacts from flooding as a result of failure of a levee or dam or inundation by seiches, tsunamis, or mudflows;

PAR 1135 is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

According to the data provided by Facility 2, construction activities will require approximately 250 gallons per day of potable water to control dust while preparing foundations for each diesel engine. However, the proposed project will not appreciably change the current use of water and treatment of wastewater during operation at Facility 2. Thus, the proposed project is not expected to exceed the significance threshold of potable water or wastewater discharge and the same reasoning as listed in items 1) through 7) for why less than significant hydrology and water impacts would occur also apply to the proposed project. Therefore, the previous conclusion of less than significant impact to hydrology and water in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### <u>Noise</u>

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed noise impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA concluded that less than significant noise impacts would occur because:

- all of the construction activities are expected to occur within the confines of the existing facilities where the existing noise environment at each of the affected facilities is typically dominated by noise from existing equipment onsite, vehicular traffic around the facilities, and trucks entering and exiting facility premises. In addition, Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances;
- since the affected facilities are located in industrial land use areas, which have a higher background noise level when compared to other areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line;

- 3) once the construction is complete, the noise from operation activities will be similar to the existing noise setting currently generated on-site because replacement equipment will have a similar noise profile as the equipment being replaced. but if additional noise is generated, each facility will be required to comply with all existing noise control laws or ordinances, including noise standards established by OSHA and Cal/OSHA to protect worker health
- 4) the November 2018 version of Rule 1135 is not expected to cause changes to electric power generating units at the facilities located within two miles of an airport and if construction activities were to occur it is expected construction activities would be in accordance with all appropriate building, land use and fire codes;
- 5) the November 2018 version of Rule 1135 would not expose people residing or working in the vicinity of any affected facility to the same degree of excessive noise levels associated with airplanes because all noise producing equipment at the affected facilities must comply with local noise ordinances and applicable OSHA or CAL-OSHA workplace noise reduction requirements.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch (Figure 2-7). Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA. It is also important to note that the environmental topic area of noise will need to be evaluated by the land use authority prior to the Middle Ranch property being granted a change in land use to accommodate installations of new equipment to generate electricity.

Therefore, physical modifications that may occur at Facility 2 in response to PAR 1135 are expected to occur within the existing boundary of Facility 2 such that the same reasoning as listed in items 1) through 5) for why less than significant noise impacts would occur as a result of the November 2018 amendments to Rule 1135 also apply to the proposed project. Therefore, the previous conclusion of less than significant impact to noise in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Public Services

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed public services impacts associated with expected physical modifications at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits for electric power generating units in the November 2018 version of Rule 1135. The November 2018 Final Mitigated SEA concluded that less than significant public services impacts related to fire and police protection would occur because:

- new safety hazards are not expected to occur the during construction phase for the affected electric power generating units since the construction activities at each of the affected facilities would require a building permit typically undergoing a thorough "plan check" process before a permit to build is issued;
- ammonia delivery, storage, and use at affected facilities is not expected to significantly impact the hazardous material ("Haz Mat") response capabilities of the Los Angeles County Fire Authority; and
- 3) the frequency and amount of urea delivery to Facility 2 is expected to remain the same.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells, and solar powered batteries.

Since PAR 1135 is not expected to increase ammonia and urea delivery, storage, and use compared to what was analyzed in the November 2018 Final Mitigated SEA at Facility 2, the same reasoning as listed in items 1) and 2) for why less than significant public service impacts relating to fire and police protection services would occur also apply to the proposed project.

The analysis in the November 2018 Final Mitigated SEA for Rule 1135 also concluded no impacts to public services from schools and other facilities because the November 2018 version of Rule 1135 would not cause an increase in the local population such that:

- 1) additional personnel at local schools would not be needed; and
- 2) no new or physically altered government facilities would be needed in order to maintain acceptable service ratios, response times, or other performance objectives.

Since no increase in local population would be anticipated as a result of implementing PAR 1135, the same reasoning as listed in items 1) and 2) for why no public service impacts relating to schools and other facilities would occur also apply to the proposed project. Therefore, the previous conclusion of less than significant public services impacts relating to fire and police protection services and the no impacts conclusion relating to schools and other facilities in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to PAR 1135.

#### Solid and Hazardous Waste

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed solid and hazardous waste impacts at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits. The November 2018 Final Mitigated SEA concluded that less than significant solid and hazardous waste impacts would occur because:

- 1) the waste disposal needs are expected to be served by existing landfills with sufficient permitted capacity to accommodate each affected facility's solid waste disposal needs; and
- 2) implementation of the November 2018 version of Rule 1135 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations in a manner that would cause a significant adverse solid and hazardous waste impact.

The proposed project is expected to impact one electricity generating facility (i.e., Facility 2) located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., via any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries.

Since installing ZE technologies and replacing diesel engines and microturbines are expected to occur over a long period of time and require minimal construction and demolition activities, no significant volumes of waste are expected to be generated at Facility 2. Therefore, the waste disposal needs are expected to be served by existing landfills with sufficient permitted capacity. Moreover, no increases are expected for the amount of urea delivered to and stored at Facility 2, and the current maintenance schedule to replace spent SCR catalysts is expected to remain the same (or decrease). Thus, the amount of waste disposal during Facility 2 operations would not increase.

Based on the preceding discussion, the proposed project would not result in the generation of substantial solid and hazardous waste affecting concerns summarized in items 1) and 2) and therefore, the previous conclusion of less than significant impact to solid and hazardous waste in the November 2018 Final Mitigated SEA will continue to apply to the proposed project.

#### Transportation and Traffic

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed the construction and operational transportation and traffic impacts at six affected facilities (including the Santa Catalina Island electricity generating facility, referred to as Facility 2) to comply with the proposed emission limits. The November 2018 Final Mitigated SEA concluded less than significant transportation and traffic impacts relative to: 1) the peak daily work force that would be needed during construction and their associated trips; 2) peak daily number of heavyduty truck trips during construction; and 3) peak daily number of heavy-duty truck trips during operation.

As noted earlier, it would be speculative to analyze the potential land acquisition for solar PV cell installation outside of the footprint of the electric generating facility on Santa Catalina Island. While the estimated construction round trips on a peak day for replacing a diesel engine with a new Tier 4 engine at Facility 2 would remain the same as what was analyzed in the November 2019 Final Mitigated SEA (i.e., 43 construction round trips on a peak day), only 21 construction round trips would be required on a peak day to replace existing diesel internal combustion engines or microturbines with a NZE unit (linear generator, propane engine, or fuel cell). Because replacing each diesel engine with a new Tier 4 engine and replacing existing diesel internal combustion engines or microturbines with each NZE unit is assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, implementation of PAR 1135 is not expected to increase construction round trips on a peak day compared to what was previously analyzed for Facility 2 in the November 2018 Final Mitigated SEA for Rule 1135. In addition, as noted earlier, compared to the previous analysis in the November 2018 Final Mitigated SEA, no additional operational trips are expected to Facility 2 for ammonia and urea delivery and storage. Moreover, no changes are expected to the number of barge trips for fuel delivery to Santa Catalina Island on a peak day.

Thus, while implementing the proposed project might result in incremental increases in the number of trips that may occur during construction and operation, the increases do not exceed the significance criteria of 350 round trips per day for transportation and traffic. In addition, the California Department of Transportation (Caltrans) recommends the implementation of a traffic control plan to minimize disruptions to traffic and ensure adequate emergency access in the event of traffic lane closure during construction (i.e., incorporating channelizing devices preceded by approved warning signs). Moreover, a Caltrans transportation permit is required in the event that oversized transport vehicles traveling on state highways are needed to deliver construction equipment and materials. Regardless of whether a Caltrans transportation permit is required is required, Caltrans recommends that large size truck trips be limited to off-peak commute periods.

While PAR 1135 does not contain any requirements that would interfere with traffic patterns and Caltrans permit requirements, it is important to note that construction activities are anticipated as part of implementation of PAR 1135 except that the construction will occur on Santa Catalina Island, where there are no state highways. In addition, the construction equipment needed to implement PAR 1135 will be transported from the mainland to Santa Catalina Island by barge. However, because the method of transporting the construction equipment on the mainland on the way to/from the port where the barge is loaded/off-loaded could occur via state highways, the aforementioned Caltrans requirements would apply. Therefore, the previous conclusion of less than significant impacts to transportation and traffic impacts during construction and operation in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to the proposed project.

## 4.4 POTENTIAL GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126(d) requires an environmental analysis to consider the "growthinducing impact of the proposed action." CEQA defines growth-inducing impacts as those impacts of a proposed project that "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth." [CEQA Guidelines Section 15126.2(d)].

To address this issue, potential growth-inducing effects are examined through the following considerations:

- Facilitation of economic effects that could result in other activities that could significantly affect the environment;
- Expansion requirements for one or more public services to maintain desired levels of service as a result of the proposed project;
- Removal of obstacles to growth through the construction or extension of major infrastructure facilities that do not presently exist in the project area or through changes in existing regulations pertaining to land development;
- Adding development or encroachment into open space; and/or
- Setting a precedent that could encourage and facilitate other activities that could significantly affect the environment.

#### 4.4.1 Economic and Population Growth, and Related Public Services

A project would be considered to directly induce growth if it would directly foster economic or population growth or the construction of new housing in the surrounding environment (e.g., if it would remove an obstacle to growth by expanding existing infrastructure such as new roads or wastewater treatment plants).

The project evaluated in the November 2018 Final Mitigated SEA for Rule 1135 was concluded to not remove barriers to population growth, since implementation of the November 2018 version of Rule 1135 involved no changes to a General Plan, zoning ordinance, or a related land use policy.

The proposed project evaluated in this SEA contains incremental changes to the project previously evaluated in the November 2018 Final Mitigated SEA for Rule 1135. The proposed project would also not be expected to remove barriers to population growth, since implementation of the proposed project does not involve any changes to a General Plan, zoning ordinance, or a related land use policy.

Further, the proposed project, as with the project evaluated in the November 2018 Final Mitigated SEA for Rule 1135, does not include policies that would encourage the development of new housing or population-generating uses or infrastructure that would directly encourage such uses. The proposed project, as with the project evaluated in the November 2018 Final Mitigated SEA for Rule 1135, does not change jurisdictional authority or responsibility concerning land use or

property issues. Land use authority falls solely under the purview of the local governments. The South Coast AQMD is specifically excluded from infringing on existing city or county land use authority (Health and Safety Code Section 40414). Therefore, PAR 1135 would not directly trigger new residential development in the area.

The proposed project may result in construction activities associated with installing new or modifying existing air pollution control equipment, NZE, and ZE technologies to achieve NOx reductions. However, PAR 1135 would not directly or indirectly stimulate substantial population growth, remove obstacles to population growth, or necessitate the construction of new community facilities that would lead to additional growth within South Coast AQMD's jurisdiction. It is expected that construction workers will be largely drawn from the existing workforce pool in southern California. PAR 1135 would not require relocation of any workers and it would not be expected to result in an increase in local population, housing, or associated public services (e.g., fire, police, schools, recreation, and library facilities) since no increase in population or the number of permanent workers is expected. Likewise, PAR 1135 would not create new demand for secondary services, including regional or specialty retail, restaurant or food delivery, recreation, or entertainment uses. As such, the proposed project would not foster economic or population growth in the surrounding area in a manner that would be growth-inducing.

Thus, implementing PAR 1135 will not, by itself, have any direct or indirect growth-inducing impacts on businesses in the South Coast AQMD's jurisdiction because it is not expected to foster economic or population growth or the construction of additional housing and primarily affects existing facilities.

#### 4.4.2 Removal of Obstacles to Growth

The facilities that may be affected by the proposed project are located within an existing industrial area. PAR 1135 would not employ activities or uses that would result in growth inducement, such as the development of new infrastructure (e.g., new roadway access or utilities) that would directly or indirectly cause the growth of new populations, communities, or currently undeveloped areas. While construction and operation activities that may occur as a result of PAR 1135 will require trips associated with construction workers, delivery of supplies and haul trips, the trips are expected to occur via existing roadways and transportation corridors. Thus, PAR 1135 is not expected to require the development of new roads or freeways. Likewise, PAR 1135 would not result in an expansion of existing public service facilities (e.g., police, fire, libraries, and schools) or the development of public service facilities that do not already exist.

#### 4.4.3 Development or Encroachments into Open Space

Development can be considered growth-inducing when it is not contiguous to existing urban development and introduces development into open space areas. PAR 1135 is situated within the existing South Coast Air Basin, which is urbanized. The areas of the Basin where construction activities may occur would be at existing electric generating facilities that are generally located within commercial and industrial (urbanized) areas. Any related construction activities would be expected to be within the confines of the existing facilities and would not encroach into open space. Further, the associated trips would occur along existing transportation corridors. Therefore, PAR 1135 would not result in development within or encroachment into an open space area.

#### 4.4.4 Precedent Setting Action

Rule 1135 was adopted in August 1989 to reduce NOx emissions from electricity generating facility. The rule has been amended four times with the last amendment in January 2022. The purpose of the January 2022 amendments to Rule 1135 was to remove ammonia limits, update provisions for Continuous Emission Monitoring Systems, reference Rule 429.2 for startup and shutdown requirements, and revise requirements for diesel internal combustion engines on Santa Catalina Island. The January 2022 amendments to Rule 1135 also directed staff to re-initiate rule development to include a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies. Thus, PAR 1135 mainly proposes to update the annual NOx emission limits and compliance dates for the electricity generating facility located on Santa Catalina Island with a focus on NZE, and ZE technologies. As noted earlier, implementation of the proposed project is expected to result in potentially significant delayed NOx emission reductions due to: 1) removing the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024; 2) delaying the compliance dates for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); and 3) delaying the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years). Eventually, PAR 1135 will reduce the NOx mass emission limit from 13 tpy to 6 tpy on and after January 1, 2035, with a threesix-year extension option to achieve 6 tpy by January 1, 20382041. If any extension is granted for the 13 tpyany NOx emission limits as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time. The proposed project aims to achieve NOx emission reductions from electric generating units located on Santa Catalina Island in order to comply with state and federal air quality planning regulations and requirements. PAR 1135 would not result in precedent-setting actions that might cause other significant environmental impacts.

#### 4.4.5 Conclusion

PAR 1135 is not expected to foster economic or population growth or result in the need to construct additional housing or other infrastructure, either directly or indirectly, that would further encourage growth. While PAR 1135 could result in construction projects at existing facilities, the proposed project would not be considered growth-inducing, because it would not result in an increase in production of resources or cause a progression of growth that could significantly affect the environment either individually or cumulatively.

# 4.5 RELATIONSHIP BETWEEN SHORT-TERM AND LONG-TERM ENVIRONMENTAL GOALS

CEQA documents are required to explain and make findings about the relationship between short term uses and long-term productivity [CEQA Guidelines Section 15065(a)(2)]. An important consideration when analyzing the effects of a proposed project is whether it will result in short-term environmental benefits to the detriment of achieving long-term goals or maximizing productivity of these resources. Implementing the proposed project is not expected to achieve short-term goals at the expense of long-term environmental productivity or goal achievement.

For the electricity generating facility located on Santa Catalina Island, PAR 1135 contains both short- and long-term goals which proposes to: 1) remove the 50 tpy NOx emission limit which has

an expired compliance date of January 1, 2024; 2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. Thus, implementation of the proposed project is expected to result in the following delayed NOx emission reductions which vary according to compliance year and exceed the South Coast AQMD significance threshold for mass daily emissions of NOx:

- 21.3 tpy (equal to 116.71 lb/day) from January 1, 2024 to January 1, 2025;
- 26.3 tpy (equal to 144.11 lb/day) from January 1, 2025 to January 1, 2026;
- 58.3 tpy (equal to 319.45 lb/day) from January 1, 2026 to January 1, 2027 (with a potential extension up to three years);
- 32 tpy (equal to 175.34 lb/day) from January 1, 2027 (with a potential extension up to three years) to January 1, 2028 (with a potential extension up to three years); and
- 17 tpy (equal to 93.15 lb/day) from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to three six years)

If any extension is granted for the 13 tpyany NOx emission limits as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time. However, upon full implementation of PAR 1135 (e.g., when the NOx limit will reach 6 tpy by January 1, 2035 (with a potential extension up to three six years)), the emission reductions of NOx, a precursor to the formation of ozone and PM2.5, will help the South Coast AQMD region attain federal and state air quality standards which, in turn, will be expected to enhance the short- and long-term environmental productivity in the region.

#### CHAPTER 5

#### ALTERNATIVES

Introduction

Methodology for Developing Project Alternatives Description of Alternatives to the Proposed Project Alternatives Analysis Comparison of Alternatives to the Proposed Project Alternatives Rejected as Infeasible Lowest Toxic and Environmentally Superior Alternative Conclusion

## 5.0 INTRODUCTION

This SEA provides a discussion of alternatives to the proposed project as required by CEQA. The alternatives discussion includes measures for attaining the objectives of the proposed project and provides a means for evaluating the comparative merits of each alternative. A 'no project' alternative must also be evaluated. The range of alternatives must be sufficient to permit a reasoned choice but need not include every conceivable project alternative. CEQA Guidelines Section 15126.6(c) specifically notes that the range of alternatives required in a CEQA document is governed by a 'rule of reason' and only necessitates that the CEQA document set forth those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation. A CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. In addition, South Coast AQMD's certified regulatory program pursuant to Public Resources Code Section 21080.5, CEQA Guidelines Section 15125(1), and South Coast AQMD Rule 110 does not impose any greater requirements for a discussion of project alternatives in a SEA than is required for an EIR under CEQA.

## 5.1 METHODOLOGY FOR DEVELOPING PROJECT ALTERNATIVES

The alternatives typically included in CEQA documents for proposed South Coast AQMD rules, regulations, or plans are developed by breaking down the project into distinct components (e.g., emission limits, compliance dates, applicability, exemptions, pollutant control strategies, etc.) and varying the specifics of one or more of the components. Different compliance approaches that generally achieve the objectives of the project may also be considered as project alternatives. CEQA Guidelines Section 15126.6(b) states that the purpose of alternatives is to identify ways to mitigate or avoid significant effects that a project may have on the environment.

The initial analysis of PAR 1135 determined that, of the amendments proposed for the electricity generating facility located on Santa Catalina Island, only the components in PAR 1135 that pertain to the proposed revisions to the annual NOx limits and delayed compliance dates, could have potentially significant adverse operational air quality impacts. As such, alternatives to the proposed project were crafted by varying the annual NOx limits and/or varying the corresponding compliance dates to meet such limits.

## 5.2 DESCRIPTION OF ALTERNATIVES TO THE PROPOSED PROJECT

Four alternatives to PAR 1135 were analyzed and are summarized in Table 5-1: Alternative A – No Project, Alternative B – More Stringent Proposed Project, Alternative C – Less Stringent Proposed Project, and Alternative D – No ZE Equipment. The primary components of the alternatives vary by modifications to the annual NOx limits and their corresponding compliance dates as well as the manner in which the annual NOx limits may be achieved. Unless otherwise specifically noted, all other components of the project alternatives are identical to the components of PAR 1135.

The following subsections provide a brief description of the alternatives.

## 5.2.1 Alternative A – No Project

CEQA requires the specific alternative of "No Project" to be evaluated. A No Project Alternative consists of what would occur if the proposed project (PAR 1135) was not approved; in this case, not proposing amendments to Rule 1135. Alternative A, the no project alternative, means that the January 2022 version of Rule 1135 would remain in effect. Under Alternative A, the electricity generating facility located on Santa Catalina Island would have to comply with the annual NOx limits in the January 2022 version of Rule 1135. In other words, this facility would be required to reduce their annual NOx emissions to less than or equal to 50 tpy, 45 tpy, and 13 tpy by January 1, 2024, January 1, 2025, and January 1, 2026 (with a three-year extension option to meet 13 tpy by January 1, 2029), respectively. Moreover, under Alternative A, the owner or operator of the electricity generating facility located on Santa Catalina Island would be prohibited from installing any new diesel internal combustion engines after January 1, 2024.

## 5.2.2 Alternative B – More Stringent Proposed Project

There are some elements in PAR 1135 that could be adjusted to create a more stringent version of the proposed project. To increase the stringency, more requirements would need to be imposed such as further reducing the NOx limits with earlier compliance dates. PAR 1135 requires the electricity generating facility located on Santa Catalina Island to reduce their emissions to eventually meet the 6 tpy NOx limit by January 1, 2035 (with a threesix-year extension option provision to meet 6 tpy by January 1, 20382041); however, under Alternative B, a more stringent NOx limit of 1.8 tpy (instead of 6 tpy) by January 1, 2035 (with a threesix-year extension option provision to meet 1.8 tpy by January 1, 20382041) is considered. The overall NOx emission reductions from Alternative B will be 4.2 tpy more than those of the proposed project. All other elements, NOx limits, and deadlines would remain the same under Alternative B as for the proposed project.

## 5.2.3 Alternative C – Less Stringent Proposed Project

In contrast to Alternative B, there are a number of elements in PAR 1135 that could be adjusted to create a less stringent version of the proposed project. To reduce the stringency, fewer requirements would need to be imposed such as higher NOx limits with delayed compliance dates. PAR 1135 requires the electricity generating facility located on Santa Catalina Island to reduce their emissions to eventually meet the 6 tpy NOx limit by January 1, 2035 (with a threesix-year extension option provision to meet 6 tpy by January 1, 20382041); however, under Alternative C, more flexibility to the electricity generating facility located on Santa Catalina Island would be provided by: 1) removing the 45 tpy and 6 tpy NOx limits; 2) delaying the compliance date of the 30 tpy NOx limit by one year; 3) including a new interim NOx emission limit of 20 tpy with a compliance date of January 1, 2031 (with a potential extension up to three years); 4) postponing the prohibition deadline to install a new diesel engine and install equipment that does not meet the definition of NZE or ZE electric generating unit for one year; 5) delaying the compliance date to attain 13 tpy NOx limit by five years; 6) postponing the deadline to install NZE and/or ZE electric generating units with a cumulative rating greater than or equal to  $(\geq)$  1.8 MW for five years; and 7) delaying the deadline to remove all prime power diesel engines with a construction date earlier than date of adoption from service for five years. The overall NOx emission reductions from Alternative C will be 7 tpy fewer than the proposed project.

## 5.2.4 Alternative D – No ZE Equipment

As noted earlier in this SEA, there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. Complications in the permitting process and land use plans may also be substantial obstacles to either acquiring or leasing additional land outside of boundaries of this electric generating facility for the purpose of installing solar PV cells. For example, modifications to the Santa Catalina Island land use plan would require the revisions of existing land use regulations, which could take several years. For these reasons, Alternative D was crafted to examine a scenario that does not rely on ZE equipment such as solar batteries and PV cells.

While PAR 1135 requires the electricity generating facility located on Santa Catalina Island to reduce their NOx emissions to 6 tpy on and after January 1, 2035 (with a potential extension up to three six years), Alternative D will instead set the final NOx limit to 13 tpy with a compliance date of January 1, 2030 (with a potential extension up to three six years). Alternative D is expected to be achieved with a mix of 5248% NZE, and 4852% diesel internal combustion engines for power generation. Under Alternative D, the electricity generating facility located on Santa Catalina Island would forego ZE solar batteries and PV cells, and opt instead for NZE and new Tier 4 Final diesel engines to attain the 13 tpy NOx limit. The overall NOx emission reductions from Alternative D will be 7 tpy fewer than the proposed project. All other elements, limits, and deadlines would be the same under Alternative D as is in the proposed project.

## 5.3 ALTERNATIVES ANALYSIS

The same environmental topic areas evaluated for the proposed project are analyzed for each alternative. The following subsections re-summarize impacts and significance conclusions from the proposed project before discussing each alternative. A comparison of the environmental impacts for each project alternative is also provided in Table 5-2.

## 5.3.1 Air Quality and Greenhouse Gas Emissions

## 5.3.1.1 Proposed Project

Potential direct and indirect air quality and GHG emissions impacts from the proposed project are summarized in the following subsection. For the complete analysis, refer to Section 4.1 - Air Quality and Greenhouse Gas Emissions.

As explained previously, PAR 1135 will only impact one electricity generating facility located on Santa Catalina Island. Compliance with PAR 1135 is expected to be achieved through replacing three existing diesel internal combustion engines with three new Tier 4 Final diesel engines, replacing the remaining existing diesel internal combustion engines and microturbines with NZE technologies (e.g., any combination of propane engines, linear generators, and/or fuel cells), and installing ZE technologies such as solar PV cells and solar powered batteries. These construction activities are expected to generate less than significant air quality and GHG impacts.

For the electricity generating facility located on Santa Catalina Island, PAR 1135 proposes to: 1) remove the 50 tpy NOx emission limit which has an expired compliance date of January 1, 2024;

2) delay the compliance date for the 45 tpy NOx emission limit by two years from January 1, 2025 to January 1, 2027 (with a potential extension up to three years); 3) delay the compliance date for the 13 tpy NOx emission limit by four years from January 1, 2026 to January 1, 2030 (with a potential extension up to three six years); and 4) include new annual NOx emission limits of 30 tpy and 6 tpy with compliance dates of January 1, 2028 (with a potential extension up to three years) and January 1, 2035 (with a potential extension up to three six years), respectively. Thus, implementation of the proposed project is expected to result in the following delayed NOx emission reductions which vary according to compliance year and exceed the South Coast AQMD significance threshold for mass daily emissions of NOx:

- 21.3 tpy (equal to 116.71 lb/day) from January 1, 2024 to January 1, 2025;
- 26.3 tpy (equal to 144.11 lb/day) from January 1, 2025 to January 1, 2026;
- 58.3 tpy (equal to 319.45 lb/day) from January 1, 2026 to January 1, 2027 (with a potential extension up to three years);
- 32 tpy (equal to 175.34 lb/day) from January 1, 2027 (with a potential extension up to three years) to January 1, 2028 (with a potential extension up to three years); and
- 17 tpy (equal to 93.15 lb/day) from January 1, 2028 (with a potential extension up to three years) to January 1, 2030 (with a potential extension up to three six years).

If any extension is granted for the 13 tpyany NOx emission limits as presented in Table 1-1 (up to three years), the emission reductions will be delayed for a longer period of time. Implementation of the proposed project may result in the generation of 4.33 amortized MT/yr of CO2e emissions during construction and 1099.57 MT/yr of CO2e emissions during operation from all the affected facilities, which is less than the South Coast AQMD significance threshold of 10,000 MT/yr of CO2e for GHGs.

Moreover, potentially significant cancer risk impacts are expected during the operation of electricity generating facility located on Santa Catalina Island to meet the 45 tpy, 30 tpy, and 13 tpy NOx limits by January 1, 2027 (with a potential extension up to three years), January 1, 2028 (with a potential extension up to three years), and January 1, 2030 (with a potential extension up to three six years), respectively. However, once this facility meets the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to three six years), the operational cancer risk would not exceed the South Coast AQMD significance threshold (i.e., 10 in a million).

#### 5.3.1.2 Alternative A – No Project

Under Alternative A, the electricity generating facility located on Santa Catalina Island would be subject to the following annual NOx limits in the January 2022 version of Rule 1135: 50 tpy by January 1, 2024; 45 tpy by January 1, 2025; and 13 tpy by January 1, 2026 (with a three-year extension option to meet 13 tpy by January 1, 2029).

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed and showed less than significant environmental impacts associated with physical activities at six affected facilities,

including the replacement of five existing diesel engines with five new Tier 4 Final diesel engines to meet the 13 tpy NOx limit by January 1, 2026 at the electricity generating facility located on Santa Catalina Island. However, this facility has indicated that they can neither attain the original 13 tpy NOx limit by January 1, 2026 from the November 2018 amendments to Rule 1135 nor the current annual NOx limits and compliance dates adopted in the January 2022 version of Rule 1135. Under this No Project Alternative, installations of new diesel engines after January 1, 2024 are prohibited.

### 5.3.1.3 Alternative B – More Stringent Proposed Project

As explained in Chapter 2, PAR 1135 has been developed to update the NOx limits and compliance dates for the electricity generating facility located on Santa Catalina Island, with a specific focus on NZE and ZE technologies. Under Alternative B, in lieu of 6 tpy that is currently proposed in PAR 1135, the electricity generating facility located on Santa Catalina Island would have to comply with a more stringent NOx limit of 1.8 tpy by January 1, 2035, (with a threesix-year extension option to meet 6 tpy by January 1, 2038). Because the electricity generating facility affected by PAR 1135 is unique, located on an island and serving as the sole provider of power, including electricity, water movement, and waste systems, providing reliable and sufficient power is crucial to avoid blackouts and other public health issues related to polluted water and hazard health from biological waste exposure. Overall, the electricity generating facility located on Santa Catalina Island should consider several repower parameters including electricity demand, power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies while trying to meet any proposed NOx emission limits. Under Alternative B, the final 1.8 tpy NOx limit would require increased quantities of propane to be delivered to the island on an annual basis and enough storage capacity for 30-days in case of unforeseen circumstances preventing the required daily deliveries by barge while avoiding any loss of power needs on the island. Compared to the proposed project, Alternative B would introduce uncertainty about whether the delivery can be consistently met and a potential lack of storage capacity.

As previously shown in Table 4-6, the 6 tpy NOx limit is expected to be achieved via a variety of technologies which comprise a combination of 30% solar, 48% NZE, and 22% Tier 4 Final diesel engines; however, under Alternative B, the 1.8 tpy NOx limit would be achieved based on a portfolio of 30% solar, 65% NZE, and 5% diesel Tier 4 Final engines. Thus, when compared to PAR 1135, more NZE units (e.g., any combination of linear generators, fuel cells, and/or propane engines) are expected to be installed under Alternative B. Because the replacement of each diesel engine and SCR with new diesel engine and SCR, and installation of NZE units are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative B would result in similar peak daily construction emissions to those of the proposed project. However, when compared to PAR 1135, the construction activities under Alternative B would occur over a longer period of time (as more NZE equipment may need to be installed), thus resulting in slightly higher GHG emissions from construction.

As explained in Chapter 4 and shown in Appendix C, the maximum annual operational GHG emissions at Facility 2 come from the following activities to meet 45 tpy NOx limit: 1) increased annual barge trips for fuel delivery to Santa Catalina and 2) incremental increases in annual operational GHG emissions from power producing units. Since Alternative B would have the same

requirement as PAR 1135 to meet 45 tpy NOx limit, no changes to the maximum annual operational GHG emissions are expected under this alternative compared to PAR 1135. Thus, although Alternative B would result in slightly higher GHG emissions than PAR 1135 during construction, the maximum annual GHG emissions under this alternative would remain below the South Coast AQMD significance threshold of 10,000 MT/yr of CO2e for GHGs.

Alternative B would result in the same amount of delayed NOx emission reductions as PAR 1135. Thus, Alternative B would result in significant operational air quality impacts. However, the overall NOx emission reductions from Alternative B will be 4.2 tpy more than those of the proposed project.

Since the analysis for PAR 1135 concluded potentially significant cancer risk impacts during the operation of the electricity generating facility located on Santa Catalina Island to meet the proposed 45 tpy, 30 tpy, and 13 tpy limits, and since Alternative B is not changing the above noted interim emission limits and their corresponding compliance dates, potentially significant operational health risk impacts are still expected under Alternative B for the same time period as PAR 1135. However, Alternative B would result in lower operational cancer risk impacts when meeting the final 1.8 tpy NOx limit instead of the 6 tpy NOx limits in PAR 1135. Nonetheless, both the 6 tpy NOx limit in PAR 1135 and 1.8 tpy NOx limit in this alternative would result in less than significant operational cancer risk impacts.

## 5.3.1.4 Alternative C – Less Stringent Proposed Project

Alternative C adjusts elements in PAR 1135 to create a less stringent proposed project by removing the 45 tpy and 6 tpy NOx limits; delaying the compliance date to attain 30 tpy NOx limit for one year; including a new annual NOx emission limit of 20 tpy by January 1, 2031 (with a potential extension up to three years); postponing the prohibition deadline to install a new diesel engine and install equipment that does not meet the definition of NZE or ZE electric generating unit for one year; delaying the compliance date to attain the 13 tpy NOx limit for five years; postponing the deadline to install NZE and/or ZE electric generating units with a cumulative rating  $\geq$  1.8 MW for five years; and delaying the deadline to remove all prime power diesel engines with a construction date earlier than date of adoption from service for five years.

As previously explained in Chapter 4, the analysis of the proposed project concluded less than significant impacts from construction air quality and GHG emissions associated with replacing three diesel engines with three new Tier 4 Final diesel engines, replacing existing microturbines with NZE units, and installing ZE technologies such as solar PV cells and solar powered batteries. When compared to PAR 1135, compliance with Alternative C is not expected to require installation of any ZE technologies; thus, Alternative C would also be expected to have less than significant impacts on construction air quality and GHG emissions.

As explained in Chapter 4 and shown in Appendix C, the source of the peak annual operational GHG emissions at Facility 2 is from the following activities to meet the 45 tpy NOx limit: 1) increased annual barge trips for fuel delivery to Santa Catalina; and 2) incremental increases in the annual operational GHG emissions from power producing units. Since Alternative C would remove the requirement to meet the 45 tpy NOx limit, fewer peak operational GHG emissions are expected under this alternative when compared to PAR 1135. Thus, the peak annual GHG

emissions under this alternative would remain less than the South Coast AQMD significance threshold of 10,000 MT/yr of CO2e for GHGs.

By providing more flexibility to the electricity generating facility located on Santa Catalina Island, implementation of Alternative C would cause additional delayed NOx emission reductions compared to PAR 1135. Thus, Alternative C would result in significant operational air quality impacts. As shown in Figure 5-1, Alternative C would result in the following delayed emission reductions:

- 116.71 lbs/day from January 1, 2024 to January 1, 2025;
- 144.11 lbs/day from January 1, 2025 to January 1, 2026;
- 319.45 lbs/day from January 1, 2026 to January 1, 2029 (with a potential extension up to three years);
- 93.15 lbs/day from January 1, 2029 (with a potential extension up to three years) to January 1, 2031 (with a potential extension up to three years); and
- 38.36 lbs/day from January 1, 2031 (with a potential extension up to three years) to January 1, 2035 (with a potential extension up to three six years).

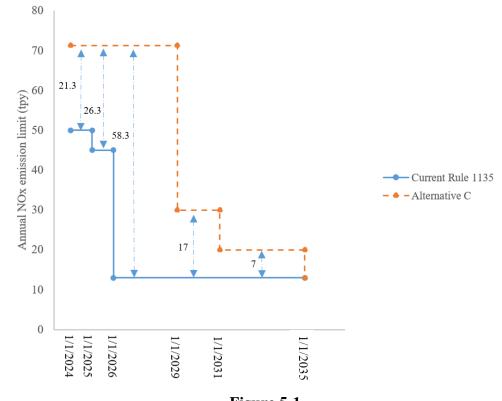


Figure 5-1 Delayed NOx Emission Reductions at Facility 2 due to Alternative C

If any extension is granted for the <u>13 tpy</u>any NOx emission limits (up to three years)under this alternative, the emission reductions will be delayed for a longer period of time.

Since the analysis of PAR 1135 concluded potentially significant cancer risk impacts during the operation of the electricity generating facility located on Santa Catalina Island to achieve the 13 tpy NOx limit, and since Alternative C eventually requires the facility to achieve the 13 tpy NOx limit with a compliance date that is five years delayed when compared to PAR 1135, potentially significant operational health risk impacts are still expected under Alternative C. In addition, unlike PAR 1135, operational health risk impacts would remain significant under this alternative.

#### 5.3.1.4 Alternative D – No ZE Equipment

Under Alternative D, the electricity generating facility located on Santa Catalina Island is not required to meet the 6 tpy NOx limit by January 1, 2035. All other elements, limits, and deadlines would be the same under Alternative D as is in the proposed project. Thus, Alternative D would impose a 13 tpy NOx limit by January 1, 2030 (with a potential extension for up to three six years) as the end point which is expected to be achieved by 5248% NZE, and 4852% diesel internal combustion engines for power generation.

As previously explained in Chapter 4, the analysis of the proposed project concluded less than significant impacts on construction air quality and GHG emissions associated with replacing three diesel engines with three new Tier 4 Final diesel engines, replacing existing microturbines with NZE units, and installing ZE technologies such as solar PV cells, and solar powered batteries. When compared to PAR 1135, compliance with Alternative D is not expected to require installation of any ZE technologies; thus, Alternative D would also be expected to have less than significant impacts on construction air quality and GHG emissions.

As explained in Chapter 4 and shown in Appendix C, the source of the peak annual operational GHG emissions at Facility 2 is from the following activities to meet 45 tpy NOx limit: 1) increased annual barge trips for fuel delivery to Santa Catalina; and 2) incremental increases in annual operational GHG emissions from power producing units. Since Alternative D would have the same requirement as PAR 1135 to achieve the 45 tpy NOx limit, no changes to the peak annual operational GHG emissions are expected under this alternative when compared to PAR 1135. Thus, the peak annual GHG emissions under this alternative would remain less than the South Coast AQMD's air quality significance threshold of 10,000 MT/yr of CO2e for GHGs.

Alternative D would result in the same amount of delayed NOx emission reductions as PAR 1135. Thus, Alternative D would result in significant operational air quality impacts. However, the overall NOx emission reductions from Alternative D will be 7 tpy fewer than the proposed project.

Since the analysis for PAR 1135 concluded potentially significant cancer risk impacts during the operation of electricity generating facility located on Santa Catalina Island to meet the 13 tpy NOx limit, and since Alternative D eventually requires the facility owner/operator of this facility to meet 13 tpy NOx limit (by the same compliance date as PAR 1135), potentially significant operational health risk impacts are still expected under Alternative D. In addition, unlike PAR 1135 which has

a final NOx limit of 6 tpy, operational health risk impacts from Alternative D would remain significant.

## 5.4 COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

Pursuant to CEQA Guidelines Section 15126.6(d), a CEQA document "shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed." Accordingly, Table 5-1 provides a matrix displaying the major differences in characteristics between the proposed project and each alternative, and Table 5-2 compares the environmental impacts between the proposed project and each alternative.

Rule Elements	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Annual NOx Emission Limits	45 tpy by 1/1/2027 30 tpy by 1/1/2028 13 tpy by 1/1/2030 6 tpy by 1/1/2035	50 tpy by 1/1/2024 45 tpy by 1/1/2025 13 tpy by 1/1/2026	45 tpy by 1/1/2027 30 tpy by 1/1/2028 13 tpy by 1/1/2030 1.8 tpy by 1/1/2035	30 tpy by 1/1/2029 20 tpy by 1/1/2031 13 tpy by 1/1/2035	45 tpy by 1/1/2027 30 tpy by 1/1/2028 13 tpy by 1/1/2030
Potential NOx Emission Reductions	65.3 tpy by 1/1/2035 (with a potential extension up to <del>three</del> <u>six</u> years)	58.3 tpy by 1/1/2026 (with potential extension up to three years)	69.5 tpy by 1/1/2035 (with a potential extension up to <del>three six</del> years)	58.3 by 1/1/2035 (with a potential extension up to <del>three six</del> years)	58.3 tpy by 1/1/2030 (with a potential extension up to three six years)
Prohibition Deadline to Install New Diesel Internal Combustion Engines	1/1/2028 (with a potential of six additional months after any time extension is provided)	1/1/2024	Same as Proposed Project	1/1/2029 (with a potential of six additional months after any time extension is provided)	Same as Proposed Project
Prohibition Deadline to Install Equipment that Does Not Meet the definition of NZE or ZE Electric Generating Unit	1/1/2028 (with a potential of six additional months after any time extension is provided)	N/A	Same as Proposed Project	1/1/2029 (with a potential of six additional months after any time extension is provided)	Same as Proposed Project
Deadline to Install NZE and/or ZE Electric Generating Units With a Cumulative Rating ≥ 1.8 MW	1/1/2030 (with a potential <u>of six</u> <u>additional months after</u> <u>any time</u> extension <u>is</u> <u>provided</u> up to three <del>years</del> )	N/A	Same as Proposed Project	1/1/2035 (with a potential <u>of six</u> <u>months after any time</u> extension- <u>is provided</u> <del>up</del> to three -years)	Same as Proposed Project
Deadline to Remove All Prime Power Diesel Internal Combustion Engines With an Installation Date Earlier than Date of Adoption From Service	1/1/2030 (with a potential of six additional months after any time extension is provided)	N/A	Same as Proposed Project	1/1/2035 (with a potential of six additional months after any time extension is provided)	Same as Proposed Project

 Table 5-1

 Summary of the Proposed Project (PAR 1135) and Alternatives

Rule Elements	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Time Extension Provision for Meeting the Annual NOx Emission Limits	An option for a three- year extension to meet <u>45 tpy, and 30 tpy by</u> <u>1/1/2030, and 1/1/2031,</u> respectively An option for a three <u>six</u> - year extension to meet 13 tpy by 1/1/ <del>2033</del> 2036 Up to three <u>six</u> -year extension option to meet 6 tpy by <u>1/1/<del>2038</del>2041</u>	An option for a three- year extension to meet 13 tpy by 1/1/2029	An option for a three- year extension to meet 45 tpy, and 30 tpy by 1/1/2030, and 1/1/2031, respectively An option for a threesix- year extension to meet 13 tpy by 1/1/20332036 Up to threesix-year extension option to meet 1.8 tpy by 1/1/20382041	An option for a three- year extension to meet 30 tpy, and 20 tpy by 1/1/2032, and 1/1/2034, respectively An option for a threesix- year extension to meet 13 tpy by 1/1/ <del>2038</del> 2041	An option for a three- year extension to meet 45 tpy, and 30 tpy by 1/1/2030, and 1/1/2031, respectively An option for a three <u>six</u> - year extension to meet 13 tpy by 1/1/ <del>2033</del> 2036

Table 5-1 (concluded)Summary of the Proposed Project (PAR 1135) and Alternatives

 Table 5-2

 Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Construction Criteria Pollutants	<ul> <li>PAR 1135 only impacts one electricity generating facility located on Santa Catalina Island.</li> <li>Compliance with the proposed project may be achieved through replacing three existing diesel engines with three new Tier 4 Final diesel engines, replacing existing microturbines with five linear generator and three fuel cells, and installing solar powered batteries and photovoltaic (PV) cells.<u>*</u></li> <li>Less than significant impacts in peak daily emissions for construction:</li> <li>VOC: 9.5 lbs/day NOx: 68.0 lbs/day CO: 52.5 lbs/day SOx: 0.1 lbs/day PM10: 5.0 lbs/day PM2.5: 3.9 lbs/day</li> </ul>	<ul> <li>Under this alternative, the electricity generating facility located on Santa Catalina Island would be required to meet 13 tpy NOx limit by 1/1/2026 (with a potential extension up to three years). However, no new diesel engine installations are allowed after 1/1/2024, so this facility would need to find non-diesel technology in order to satisfy the annual NOx limit.</li> <li>The November 2018 Final Mitigated SEA for Rule 1135 originally analyzed environmental impacts associated with compliance activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island) and concluded less than significant impacts in peak daily construction emissions for all the affected facilities.</li> </ul>	Compared to PAR 1135, more NZE units are expected to be installed under this alternative. Because replacing three existing diesel engines with three new Tier 4 Final diesel engines, replacing existing microturbines with NZE units, and installing ZE technologies are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative B would result in similar peak daily construction emissions to those of the proposed project. •Less than Significant Impacts in peak daily emissions for construction: Same as Proposed Project	Compared to PAR 1135, compliance with Alternative C is not expected to require installation of any ZE technologies. Because replacing three existing diesel engines with three new Tier 4 Final diesel engines, and replacing existing microturbines with NZE units are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative C would result in similar peak daily construction emissions to those of the proposed project. •Less than Significant Impacts in peak daily emissions for construction: Same as Proposed Project	Compared to PAR 1135, compliance with Alternative D is not expected to require installation of any ZE technologies. Because replacing three existing diesel engines with three new Tier 4 Final diesel engines, and replacing existing microturbines with NZE units are assumed to be sequential to minimize power disruptions or reductions to the facility's customers during construction, Alternative D would result in similar peak daily construction emissions to those of the proposed project. •Less than significant impacts in peak daily emissions for construction: Same as Proposed Project

\*The combination of equipment replacements is considered worst-case for the purpose of determining potential peak impacts. However, representatives from the electricity generating facility located on Santa Catalina Island indicated that they are also considering other combinations of equipment replacements such as installing NZE propane engines instead of the linear generators and fuel cells but this combination would not represent a worst-case scenario and would be expected to have fewer impacts.

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Operation Criteria Pollutants	PotentiallySignificant ImpactsImpactsdue to delayed NOx emission reductions at the electricity generating facility located on Santa Catalina Island as follows:116.71lbs/day from 1/1/2024 to 1/1/2025144.11lbs/day from 1/1/2025 to 1/1/2026319.45lbs/day from 1/1/2026 to 1/1/2027 (with a potential extension up to three years)175.34lbs/day from 1/1/2027 (with a potential extension up to three years) to 1/1/2028 (with a potential extension up to three years)93.15lbs/day from 1/1/2028 (with a potential extension up to three years) to 1/1/2030 (with a potential extension up to three six years)	•The November 2018 Final Mitigated SEA for Rule 1135 originally analyzed environmental impacts associated with compliance activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island) and concluded <b>less than</b> <b>significant impacts</b> in peak daily operational emissions for all the affected facilities.	<b>Potentially Significant</b> <b>Impacts:</b> Same as Proposed Project	Potentially SignificantImpacts due to delayedNOxemissionreductionsattheelectricitygeneratingfacility located on SantaCatalinaIslandasfollows:116.71lbs/dayfrom1/1/2024to1/1/2025144.11lbs/dayfrom1/1/2025144.11lbs/dayfrom1/1/2025144.11lbs/dayfrom1/1/2026319.45lbs/dayfrom1/1/2026to1/1/2026form1/1/2026years)93.15lbs/dayfrom1/1/2031(withapotentialextensionuptothreeyears)38.36lbs/dayfrom1/1/2031(withapotentialextensionuptothreeyears)to1/1/2035(withapotentialextensionuptothreeyears)tothapotentialextensionuptothreeyears)toto	<b>Potentially Significant</b> <b>Impacts:</b> Same as Proposed Project

 Table 5-2 (continued)

 Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
GHGs	<ul> <li>Less Than Significant Impacts:</li> <li>Implementation of PAR 1135 may result in the generation of 4.33 amortized MT/yr of CO2e emissions during construction and 1099.57 MT/yr of CO2e emissions during operation.</li> <li>The maximum annual operational GHG emissions at Facility 2 come from the following activities to meet 45 tpy NOx limit: 1) increased annual barge trips for fuel delivery to Santa Catalina; and 2) incremental increases in annual operational GHG emissions from power producing units.</li> </ul>	•The November 2018 Final Mitigated SEA for Rule 1135 originally estimated 36.35 MT/year of GHGs due to construction and operation activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island) and thus, concluded <b>less than significant GHG</b> <b>impacts</b> .	<ul> <li>Less Than Significant Impacts:</li> <li>Compared to PAR 1135, the construction activities under Alternative B would occur over a longer period of time due to replacement of existing microturbines with more NZE units, thus resulting in slightly higher GHG emissions during construction.</li> <li>Since Alternative B would have the same requirement as PAR 1135 to meet 45 tpy NOx limits, no changes to the maximum annual operational GHG emissions are expected under this alternative compared to PAR 1135.</li> </ul>	<ul> <li>Less Than Significant Impacts:</li> <li>Compared to PAR 1135, the construction activities under Alternative C would occur over a shorter period of time due to no expected ZE installation, thus resulting in lower GHG emissions during construction.</li> <li>Since Alternative C would remove the requirement to meet the 45 tpy NOx limit, lower operational GHG emissions are expected under this alternative compared to PAR 1135.</li> </ul>	<ul> <li>Less Than Significant Impacts:</li> <li>Compared to PAR 1135, the construction activities under Alternative D would occur over a shorter period of time due to no expected ZE installation, thus resulting in lower GHG emissions during construction.</li> <li>Since Alternative D would have the same requirement as PAR 1135 to meet 45 tpy NOx limit, no changes to maximum annual operational GHG emissions are expected under this alternative compared to PAR 1135.</li> </ul>

# Table 5-2 (continued) Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Construction Health Risk Impacts and Odor Nuisance	<ul> <li>Less Than Significant Health Risk and Odor Nuisance Impacts:</li> <li>Sources of health risk are diesel particulate matter from construction activities. However, since the on- and off-road diesel equipment that may be used at PAR 1135 affected facilities are expected to occur over a short-term period during construction, a HRA was not conducted. While the entire construction period, expected to span several years (from the adoption of PAR 1135 until 2035), will include sequential phases such as replacing three diesel engines with three new Tier 4 Final engines, upgrading existing microturbines with NZE power-producing engines, and installing ZE technologies, each phase will occur with several months of gap before the next upcoming phase.</li> <li>Moreover, the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction period. Thus, the quantity of pollutants that may be generated during construction from implementing PAR 1135 would not be considered substantial, irrespective of whether sensitive receptors are located near the affected facilities.</li> </ul>	•The November 2018 Final Mitigated SEA for Rule 1135 declared less than significant impacts for health risk and odor nuisance associated with construction activities at six affected facilities (including the electricity generating facility located on Santa Catalina Island).	Less Than Significant Health Risk and Odor Nuisance Impacts: Same as proposed project	Less Than Significant Health Risk and Odor Nuisance Impacts: Same as proposed project	Less Than Significant Health Risk and Odor Nuisance Impacts: Same as proposed project

 Table 5-2 (continued)

 Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

Air Quality & GHGs Impact Areas	Proposed Project: PAR 1135	Alternative A: No Project	Alternative B: More Stringent Proposed Project	Alternative C: Less Stringent Proposed Project	Alternative D: No ZE Equipment
Operation Health Risk Impacts	<ul> <li>Potentially Significant Impacts:</li> <li>Potentially maximally impacted (PMI) cancer risk of greater than 10 in a million during the operation of the electricity generating facility located on Santa Catalina Island to meet 45 tpy, 30 tpy, and 13 tpy NOx limits by 1/1/2027 (with a potential <u>extension up to three years</u>), 1/1/2028 (with a potential extension <u>up to three years</u>), and 1/1/2030 (with a potential extension up to three <u>six</u> years), respectively.</li> <li>Once the electricity generating facility located on Santa Catalina Island attains the 6 tpy NOx limit by 1/1/2035 (with a potential extension up to three <u>six</u> years), health risk impacts would be less than significant.</li> </ul>	• The November 2018 Final Mitigated SEA for Rule 1135 estimated <b>less than significant</b> <b>impacts</b> for operational health risk at six affected facilities (including the electricity generating facility located on Santa Catalina Island).	<ul> <li>The overall conclusions for potentially significant health risk impacts are the same as the proposed project.</li> <li>Once the electricity generating facility located on Santa Catalina Island attains the 1.8 tpy limit (instead of 6 tpy in PAR 1135) by 1/1/2035 (with a potential extension up to three six years), health risk impacts would be less than significant and also much lower compared to the proposed project.</li> </ul>	• The overall conclusions for potentially significant health risk impacts are the same as the proposed project. However, under this alternative, operational health risk impacts would remain significant.	•The overall conclusions for potentially significant health risk impacts are the same as the proposed project. However, under this alternative, operational health risk impacts would remain significant.

 Table 5-2 (concluded)

 Comparison of Adverse Environmental Impacts of the Proposed Project (PAR 1135) and Alternatives

# 5.5 ALTERNATIVES REJECTED AS INFEASIBLE

In accordance with CEQA Guidelines Section 15126.6(c), a CEQA document should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. CEQA Guidelines Section 15126.6(c) also states that among the factors that may be used to eliminate alternatives from detailed consideration in a CEQA document are: 1) failure to meet most of the basic project objectives; 2) infeasibility; or 3) inability to avoid significant environmental impacts. As noted in Section 5.1, the range of feasible alternatives to the proposed project is limited by the nature of PAR 1135 and associated legal requirements. Similarly, the range of alternatives considered, but rejected as infeasible is also relatively limited. This subsection identifies Alternative A, as being rejected due to infeasibility, for the reasons explained in the following discussion.

## 5.5.1 Alternative A - No Project

CEQA documents typically assume that the adoption of a No Project alternative would result in no further action on the part of the project proponent or lead agency. For example, in the case of a proposed land use project such as a housing development, adopting the No Project alternative terminates further consideration of that housing development or any housing development alternative identified in the associated CEQA document. In that case, the existing setting would typically remain unchanged.

By not adopting PAR 1135, Alternative A would require the electricity generating facility located on Santa Catalina Island to meet the annual NOx limits in the January 2022 version of Rule 1135 even though the facility has indicated that they cannot attain these annual NOx limits by their respective compliance dates. Currently, the annual NOx emissions from the electricity generating facility located on Santa Catalina Island already exceed the <u>45–50</u> tpy NOx limit which had a compliance date of January 1, 2024. Also, because the January 2022 version of Rule 1135 contains a prohibition to install new diesel engines after January 1, 2024, this facility would not be able to replace their existing diesel engines with new Tier 4 Final diesel engines to meet any of the annual NOx limits and compliance dates in the January 2022 version of Rule 1135.

In addition, during the 2022 amendments to Rule 1135, stakeholders commented that an updated BARCT assessment was warranted due to the change in averaging time and that the BARCT assessment should emphasize ZE technologies. The adopted resolution for Rule 1135 at that time directed staff to re-initiate the rule development process and develop a proposal that included a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies.

The main objectives of the proposed project are to: 1) revise the BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies; and 2) reduce the final NOx mass emission limit for the facility located on Santa Catalina Island.

Alternative A is rejected as infeasible because it neither meets the objectives of the proposed project nor takes into consideration the direction of adopted resolution during 2022 amendments

to Rule 1135 to include a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies.

# 5.6 LOWEST TOXIC ALTERNATIVE AND ENVIRONMENTALLY SUPERIOR ALTERNATIVE

## 5.6.1 Lowest Toxic Alternative

In accordance with South Coast AQMD's policy document: Environmental Justice Program Enhancements for FY 2002-03, Enhancement II-1 recommends for all South Coast AQMD CEQA documents which are required to include an alternatives analysis, the alternative analysis shall also include and identify a feasible project alternative with the lowest air toxics emissions. In other words, for any major equipment or process type under the scope of the proposed project that creates a significant environmental impact, at least one alternative, where feasible, shall be considered from a "least harmful" perspective with regard to hazardous or toxic air contaminants.

As previously shown in Table 4-8, implementation of the proposed project, which requires attainment with the 45 tpy, 30 tpy, and 13 tpy NOx limits, was concluded to cause significant cancer risk impacts during the operation of the electricity generating facility located on Santa Catalina Island. However, once the requirement for attainment with the 6 tpy NOx limit by January 1, 2035 (with a potential extension up to three six years) goes into effect, less than significant impacts to operational cancer risk are expected.

In order to qualify as the lowest toxic alternative, the alternative would need to have the least amount of toxic air contaminants during operation of the electricity generating facility located on Santa Catalina Island. PAR 1135 and all of the alternatives concluded a potentially significant operational cancer risk at the 13 tpy NOx limit, though the alternatives have varying compliance dates.

However, when compared to the proposed project which has a final NOx limit of 6 tpy by January 1, 2035 (with a potential extension up to <u>three six</u> years) and less than significant impacts to operational cancer risk, Alternative B with its more stringent 1.8 tpy NOx limit by January 1, 2035 (with a potential extension up to <u>three six</u> years), would result fewer operational cancer risk impacts. Nonetheless, both the 6 tpy NOx limit in PAR 1135 and 1.8 tpy NOx limit in Alternative B would result in less than significant operational cancer risk impacts.

Therefore, when considering all of the alternatives from toxic impacts perspective, Alternative B is the lowest toxic alternative, because unlike other alternatives, this alternative would cause fewer operational cancer risk impacts due to fewer NOx emissions overall.

## 5.6.2 Environmentally Superior Alternative

Pursuant to CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the No Project alternative, the CEQA document shall also identify an alternate environmentally superior alternative from among the other alternatives.

Alternative A is equivalent to the January 2022 version of Rule 1135, which requires the electricity generating facility located on Santa Catalina Island to attain the 50 tpy, 45 tpy, and 13 tpy NOx limits by January 1, 2024, January 1, 2025, and January 1, 2026 (with a three-year extension option to meet 13 tpy by January 1, 2029), respectively. However, the facility has indicated that they cannot attain any of these NOx limits by their respective compliance dates. It should be noted that the annual NOx emissions from this facility are already greater than the NOx limit currently in effect (i.e., 45 tpy by January 1, 2025). Under Alternative A, installations of new diesel engines are prohibited after January 1, 2024 and thus, this facility would not be able to replace their existing diesel engines with new Tier 4 Final diesel engines to attain any of the annual NOx limits by their respective compliance dates in the January 2022 version of Rule 1135. This means that the actual NOx emission reductions achieved from Alternative A would be fewer than originally projected for this facility. Also, as explained in Section 5.6.1, Alternative A would result in significant operational cancer risk impacts when attaining any of the annual NOx limits. Based upon these considerations, Alternative A is not the environmentally superior alternative.

As discussed in Section 5.3.1, Alternatives B and D would result in the same quantity of delayed NOx emission reductions as the proposed project, while Alternative C would cause further additional delayed reductions. Alternatives C and D would cause significant operational cancer risk impacts even when attaining the final annual NOx limit requirements. However, as discussed in Section 5.6.1, Alternative B is the only alternative to the proposed project with less than significant operational cancer risk impacts when meeting its final annual NOx limit (e.g., 1.8 tpy). Also, as shown in Table 5-1, Alternative B would result in greater NOx emission reductions compared to the other alternatives and the proposed project over the long-term. Based upon above considerations, Alternative B would be considered the environmentally superior alternative. Nonetheless, similar to the proposed project, Alternative B is also expected to cause significant and unavoidable adverse environmental impacts for the topic of air quality during operation due to interim delayed NOx emission reductions, interim exceedances of the air quality significance thresholds for project-specific changes in the 24-hour average concentrations of PM2.5 and PM10, and interim cancer risk impacts.

# 5.7 CONCLUSION

As discussed previously, Alternative A was dismissed as infeasible because it would not fulfill the objectives of PAR 1135, nor take into consideration the direction of adopted resolution during 2022 amendments to Rule 1135 to include a revised BARCT assessment for the electric generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE and NZE technologies. Alternatives B and D would result in the same quantity of delayed NOx emission reductions as the proposed project, while Alternative C would cause further additional delayed reductions. Similar to the proposed project, Alternative B would be the only alternative resulting in less than significant cancer risk impacts when meeting the final annual NOx limit. Compared to PAR 1135, Alternatives A, C, and D would result in fewer overall NOx emission reductions over the long-term. On the other hand, Alternative B would provide more air quality and health benefits compared to PAR 1135 due to greater NOx emission reductions and the smallest operational cancer risk over the long-term. **Due to uncertainties associated with the ability of the electricity generating facility located on Santa Catalina Island to feasibly attain the final 1.8 tpy NOx limit by January 1, 2035 (or January 1, 2038-2041 with a threesix-year extension provision), the proposed project provides the best balance in achieving the project** 

objectives while minimizing the significant adverse environmental impacts to operational air quality.

# CHAPTER 6

# REFERENCES

## 6.0 **REFERENCES**

The following list of references is presented by chapter, in order of appearance:

### **Chapter 1 – Executive Summary**

- 1. The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., Ch. 324 (codified at Health and Safety Code Section 40400-40540).
- 2. CEQA Guidelines, Title 14 California Code of Regulations Section 15000 et seq.
- 3. Health and Safety Code Section 40460(a).
- 4. Health and Safety Code Section 40440(a).
- 5. South Coast AQMD, 2017. Final 2016 Air Quality Management Plan, March 2017. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf</u>.
- 6. South Coast AQMD, 2022. Final 2022 Air Quality Management Plan, December 2022. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf</u>.
- 7. South Coast AQMD, Rule 2009, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xx/rule-2009-compliance-plan-for-power-producing-facilities.pdf</u>.
- 8. South Coast AQMD, Rule 429.2, <u>http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-429-2.pdf</u>.
- 9. South Coast AQMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <u>http://www.aqmd.gov/home/research/documents-reports/lead-agency-SCAQMD-projects/SCAQMD-projects---year-2017</u>.
- South Coast AQMD, 2018. Final Mitigated Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, SCH No. 2016071006. <u>http://www.aqmd.gov/docs/defaultsource/ceqa/documents/aqmd-projects/2018/par-1135---final-mitigated-sea\_withappendices.pdf</u>.

### **Chapter 2 – Project description**

- 1. South Coast AQMD, Rule 1470, <u>http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf</u>.
- 2. Fuel Cell & Hydrogen Energy Association, Fuel Cell Basics, https://www.fchea.org/fuelcells.
- Combined Heat and Power Partnership, Catalog of CHP Technologies, Section 6. Technology Characterization – Fuel Cells, <u>https://www.epa.gov/sites/default/files/2015-07/documents/catalog of chp\_technologies\_section 6. technology\_characterization - fuel\_cells.pdf</u>.

- 4. Greentech Media, "Mainspring Energy Lands \$150M Deal to Deploy its Linear Generators with NextEra," <u>https://www.greentechmedia.com/articles/read/mainspring-energys-linear-generators-to-roll-out-through-150m-deal-with-nextera</u>.
- 5. United States Energy Information Administration, Photovoltaics and Electricity, <u>https://www.eia.gov/energyexplained/solar/photovoltaics-and-</u> <u>electricity.php#:~:text=The% 20U.S.% 20Energy% 20Information% 20Administration% 20% 28</u> <u>EIA% 29% 20estimates% 20that, 2020% 2C% 20up% 20from% 2011% 20billion% 20kWh% 20in</u> <u>% 202014</u>.
- 6. California SB 605, Padilla, Chapter 405 (2023): https://legiscan.com/CA/text/SB605/id/2844364.
- 7. Catalina Island Conservancy, GIS Work for Large Solar Project on Island, Accessed: July 21, 2022.
- Fuel tank capacity for barge deliveries is included in the Southern California Edison Pebbly Beach Alternatives Study, Revised Final Action Plan (July 14, 2022): <u>http://www.aqmd.gov/docs/default-source/Agendas/hearing-board/case-documents/exh-d---pbgs-action-plan-(revised-7-14-22).pdf</u>.

### **Chapter 3 – Existing Setting**

- 1. U.S. EPA, 2020. Criteria Air Pollutants. <u>https://www.epa.gov/criteria-air-pollutants</u>, accessed on July 23, 2024.
- 2. South Coast AQMD. 2015. Health Effects of Air Pollution. <u>http://www.aqmd.gov/docs/default-source/publications/brochures/the-health-effects-of-air-pollution-brochure.pdf</u>, accessed on July 23, 2024.
- South Coast AQMD, 2005. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. <u>https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document,</u> accessed on July 23, 20224.
- 4. South Coast AQMD, 2021. 2020 Air Quality South Coast Air Quality Management District CO, Historical Air Quality Data for Year 2020 at locations where CO was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/aq2020card\_final.pdf</u>, accessed on July 23, 2024.
- 5. South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where O3 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/aq2020card\_final.pdf</u>, accessed on July 23, 2024.
- 6. South Coast AQMD, 2022. 2022 Draft Air Quality Management Plan, p. 2-49. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/05-ch2.pdf</u>.

- South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where NO2 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/aq2020card\_final.pdf</u>, accessed on June 10, 2022.
- South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where SO2 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/aq2020card\_final.pdf</u>, accessed on July 23, 2024.
- South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where PM10 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/aq2020card\_final.pdf</u>, accessed on July 23, 2024.
- 10. South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where PM2.5 was monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/aq2020card\_final.pdf</u>, accessed on July 23, 2024.
- 11. South Coast AQMD, 2021. 2020 Air Quality, South Coast Air Quality Management District, Historical Air Quality Data for Year 2020 at locations where lead and sulfates were monitored; <u>http://www.aqmd.gov/docs/default-source/air-quality/historical-data-byyear/aq2020card\_final.pdf</u>, accessed on July 23, 2024.
- 12. International Agency for Research on Cancer. Vinyl Chloride Exposure Data, <u>https://monographs.iarc.who.int/wp-content/uploads/2018/06/mono100F-31.pdf</u>, accessed on June 10, 2022.
- 13. South Coast AQMD, MATES V, Multiple Air Toxics Exposure Study in the South Coast AQMD, Final Report, August 2021. <u>http://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report.pdf</u>, accessed on July 23, 2024.
- Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as described in Stanford University press release on March 16, 2010 available at: <u>https://web.stanford.edu/group/efmh/jacobson/Articles/V/CO2SOM0310.pdf</u>, accessed on July 23, 2024.
- 15. Intergovernmental Panel on Climate Change (IPCC). 2014. Fifth Assessment Report: Climate Change 2014. New York: Cambridge University Press, <u>https://www.ipcc.ch/report/ar5/syr/</u>, accessed on July 23, 2024.
- 16. Center for Disease Control, 2016. Climate Change Decreases the Quality of the Air We Breathe, <u>https://www.cdc.gov/climate-health/media/pdfs/AIR-QUALITY-Final\_508\_1.pdf</u>, accessed on July 23, 2024.
- Office of Environmental Health Hazards Assessment, 2018. Indicators of Climate Change in California, <u>https://oehha.ca.gov/media/downloads/climatechange/report/2018caindicatorsreportmay2018.pdf</u>, accessed on July 23, 2024.

- CARB, 2022. Draft 2022 Scoping Plan Update, Figure 1-7, p. 33, <u>https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf</u>, accessed on July 23, 2024.
- CARB, 2022. Draft 2022 Scoping Plan Update, Figure 1-8, p. 34, <u>https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf</u>, accessed on July 23, 2024.
- 20. U.S. EPA, 2021. EPA to Overhaul Pollution Standards for Passenger Vehicles and Heavy-Duty Trucks, Paving Way for Zero-Emission Future, News Release, August 5, 2021. <u>https://www.epa.gov/newsreleases/epa-overhaul-pollution-standards-passenger-vehicles-</u> <u>and-heavy-duty-trucks-paving-way</u>, accessed on July 23, 2024.
- 21. U.S. EPA, 2022. EPA Proposes Stronger Standards for Heavy-Duty Vehicles to Promote Clean Air, Protect Communities, and Support Transition to Zero-Emissions Future, News Release, March 7, 2022. <u>https://www.epa.gov/newsreleases/epa-proposes-stronger-standards-heavy-duty-vehicles-promote-clean-air-protect</u>, accessed on July 23, 2024.
- 22. The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) is an international treaty designed to phase out halogenated hydrocarbons such as chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which are considered ODSs. The Montreal Protocol was first signed on September 16, 1987 and has been revised seven times. The U.S. ratified the original Montreal Protocol and each of its revisions.
- 23. CARB, 2008. Climate Change Scoping Plan, A Framework for Change.
- 24. CARB, 2017. California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target, <u>https://www.arb.ca.gov/cc/scopingplan/2030sp\_pp\_final.pdf</u>, accessed on July 23, 2024.
- 25. CARB, 2022. Draft 2022 Scoping Plan Update, May 10, 2022, Executive Summary, <u>https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf</u>, accessed on July 23, 2024.
- 26. CARB, Low-Emission Vehicle Greenhouse Gas Program, <u>https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/lev-program/low-emission-vehicle-greenhouse-gas</u>, accessed on July 23, 2024.
- 27. CARB, 2010. Staff Report Proposed Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.
- 28. CARB, 2018. SB 375 Regional Greenhouse Gas Emissions Reduction Targets <u>https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375\_Final\_Targets\_2018.pdf</u>, accessed on July 23, 2024.
- 29. CARB, 2018. Updated Final Staff Report: Proposed Update to the SB 375 Greenhouse Gas Emissions Reduction Targets, <u>https://ww2.arb.ca.gov/sites/default/files/2020-</u>06/SB375 Updated Final Target Staff\_Report 2018.pdf, accessed on July 23, 2024.

- 30. CARB. 2018. Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. <u>https://ww2.arb.ca.gov/sites/default/files/2020-</u> <u>06/SB375 Updated Final Target Staff Report 2018.pdf</u>, accessed on July 23, 2024.
- 31. SCAG, 2020. Adopted Final Connect SoCal. <u>https://scag.ca.gov/read-plan-adopted-final-plan</u>, accessed on July 23, 2024.
- 32. California Legislative Information, September 14, 2018, AB-2127 Electric Vehicle Charging Infrastructure: Assessment, <u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\_id=201720180AB2127</u>,, accessed on July 23, 2024.
- 33. California Emission Commission, 2018. News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. <u>https://www.nbcnews.com/news/us-news/california-becomes-first-state-require-solar-panels-new-homes-n872531</u>, accessed on July 23, 2024.
- 34. California Building Standards Commission, 2022. CalGreen as promulgated in the California Code of Regulations, Title 24, Part 11 (24 CCR Part 11). https://www.dgs.ca.gov/BSC/CALGreen.

### **Chapter 4 – Environmental Impacts**

- 1. South Coast AQMD, 1993. CEQA Air Quality Analysis Handbook. <u>http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook</u>.
- Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: <u>https://web.stanford.edu/group/efmh/jacobson/Articles/V/CO2SOM0310.pdf</u>, accessed July 23, 2024.

# CHAPTER 7

# ACRONYMS

## 7.0 ACRONYMS

- $\mu g/m =$  micrograms per cubic meter
- APS = Alternative Planning Strategy (APS)
- AQMP = Air Quality Management Plan
- ATCM = Airborne Toxic Control Measure
- BACT = Best Available Control Technology
- BARCT = Best Available Retrofit Control Technology
- Basin = South Coast Air Basin
- BAU = business-as-usual
- CAA = Clean Air Act
- CalEEMod = California Emission Estimator Model
- CalEPA = California Environmental Protection Agency
- CARB = California Air Resources Board
- CCR = California Code of Regulations
- CEC = California Energy Commission
- CEMS = Continuous Emission Monitoring Systems
- CEQA = California Environmental Quality Act
- CFR = Code of Federal Regulations
- CH4 = methane
- CO = carbon monoxide
- CO2 = carbon dioxide
- CO2eq = carbon dioxide equivalent
- COHb = carboxyhemoglobin
- CPR = Consumer Products Regulation
- CPUC = California Public Utilities Commission
- DLN = Dry Low NOx
- EA = Environmental Assessment
- EIR = Environmental Impact Report
- EISA = Energy Independence and Security Act
- EJ = Environmental Justice

- gal = gallons
- GHG = greenhouse gases
- GWP = global warming potential
- H2S = hydrogen sulfide
- H2SO4 = sulfuric acid
- HCFC = hydrochlorofluorocarbon
- HF = hydrofluoric acid
- HFC = hydrofluorocarbons
- HHDT = heavy-heavy duty trucks
- HI = hazard index
- HSC = Health and Safety Code
- IOUs = investor-owned utilities (IOUs)

IS = Initial Study

LADWP = Los Angeles Department of Water and Power

LAER = Lowest Achievable Emission Reduction

LCFS = Low Carbon Fuel Standard

- MATES = Multiple Air Toxics Exposure Studies
- MDAB = Mojave Desert Air Basin
- MHDT = medium-heavy duty trucks

mpg = miles per gallon

MPOs = Metropolitan Planning Organizations

N2O = nitrous oxide

- NAAQS = National Ambient Air Quality Standards
- NAHC = Native American Heritage Commission
- ND = Negative Declaration
- NHTSA = National Highway Traffic and Safety Administration
- NO = nitric oxide
- NO2 = nitrogen dioxide
- NOC = Notice of Completion
- NOE = Notice of Exemption

NOP/IS = Notice of Preparation/Initial Study

- NOx = oxides of nitrogen
- O2 = oxygen
- O3 = ozone
- ODS = ozone depleting substance
- OEHA = Office of Environmental Health Hazard Assessment
- **OES** = Office of Emergency Services
- OPR = Office of Planning and Research
- OSHA = Occupational Safety and Health Administration
- PAR = Proposed Amended Rule
- PBGS = Pebbly Beach Generating Station

PFC = perfluorocarbon

- PM = particulate matter
- PM10 = particulate matter with an aerodynamic diameter of 10 microns or less
- PM2.5 = particulate matter with an aerodynamic diameter of 2.5 microns or less
- ppb = parts per billion
- ppm = parts per million
- PRDI = Planning, Rule Development, and Implementation
- PV = photovoltaic
- RECLAIM = Regional Clean Air Incentives Market
- RELs = Reference Exposure Levels
- RFS = renewable fuel standard
- RPS = renewables portfolio standard
- RTAC = Regional Target Advisory Committee
- RTP = Regional Transportation Plan
- SCAB = South Coast Air Basin
- SCAG = Southern California Association of Governments
- SCE = Southern California Edison
- South Coast AQMD = South Coast Air Quality Management District
- SCR = Selective Catalytic Reduction

- SCS = sustainable communities strategy
- SEA = Subsequent Environmental Assessment
- SF6 = sulfur hexafluoride
- SIP = State Implementation Plan
- SO2 = sulfur dioxide
- SO3 = sulfur trioxide
- SOx = oxides of sulfur
- SSAB = Salton Sea Air Basin
- SEA = Subsequent Environmental Assessment
- TACs = toxic Air Contaminants
- tpd = tons per day
- tpy = tons per year
- U.S. EPA = United States Environmental Protection Agency
- Vehicle Mile Traveled = VMT
- VOC = volatile organic compound(s)
- ZE/NZE = zero emission and near-zero emission

### **APPENDIX A**

## **Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities**

In order to save space and avoid repetition, please refer to the latest version of PAR 1135 located elsewhere in the Governing Board Agenda for the public hearing scheduled on October 4, 2024. The version of PAR 1135 that was circulated with the Draft SEA for a 46-day public review and comment period from August 2, 2024 to September 17, 2024 was identified as the "Preliminary Draft Rule PAR 1135, revision date July 19, 2024," which is available from the South Coast AQMD's website at: https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1135/par-1135\_version-07182024-final.pdf. An original hard copy of the Draft SEA, which included the draft version of PAR 1135 listed above, can be obtained through the South Coast AQMD Public Information Center by phone at (909) 396-2001 or by email at PICrequests@aqmd.gov.

# **APPENDIX B**

CalEEMod® Files

# PAR 1135- Linear Generator installation Detailed Report

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# 1. Basic Project Information

# 1.1. Basic Project Information

Data Field	Value
Project Name	PAR 1135- Linear Generator installation
Construction Start Date	5/1/2023
Lead Agency	South Coast AQMD
Land Use Scale	Project/site
Analysis Level for Defaults	Air District
Windspeed (m/s)	2.20
Precipitation (days)	31.0
Location	33.671809251787664, -118.01529635821899
County	Los Angeles-South Coast
City	
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5854
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.7

# 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)		Special Landscape Area (sq ft)	Population	Description
User Defined Industrial PAR 1	1.00 <i>135</i>	User Defined Unit	0.00	0.00 <i>B-5</i>	10,000		— Septembe	 er 2024

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## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—	_	—	_			-	-	_		-	_	_	_	_	-
Unmit.	0.45	4.47	4.02	0.01	0.19	0.20	0.26	0.18	0.05	0.19	—	1,084	1,084	0.04	0.05	1,090
Average Daily (Max)							_	_	_		_	_	_	_	_	
Unmit.	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	4.63
Annual (Max)	—	—	—	—	_	—	_	—	_	_	—	_	_	_	_	—
Unmit.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	0.76	0.76	< 0.005	< 0.005	0.77

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

### 2.2. Construction Emissions by Year, Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	CO2e
Daily - Summer (Max)	-	-	-	—	_	_	_	—	_	—	-	_	_	_		-
2023	0.45	4.47	4.02	0.01	0.19	0.20	0.26	0.18	0.05	0.19	-	1,084	1,084	0.04	0.05	1,090
Daily - Winter (Max)	_	_	_	_	_	_	_	_		_	_	_	_	_		_
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Average Daily	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_
2023	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.57	4.57	< 0.005	< 0.005	4.63
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	0.77

# 3. Construction Emissions Details

# 3.1. Demolition (2023) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	CO2e
Onsite	_	-	_	_	_	—	_	_	_	_	_	_	_	_	—	_
Daily, Summer (Max)		_	_	-	_	-	-	-	_	_	-	_	-	_	-	-
Off-Road Equipment	0.10	0.90	1.21	< 0.005	0.06	—	0.06	0.05	—	0.05	—	163	163	0.01	< 0.005	164
Demolition	—	—	-	_	-	0.00	0.00	_	0.00	0.00	—	-	-	—	—	-
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		—	-	-	_	-	-	-	_	-	-	-	-	-	-	-
Average Daily		—	—	-	-	_	_	-	-	-	_	-	_	-	_	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	_	0.45	0.45	< 0.005	< 0.005	0.45
Demolition	_	—	-	_	_	0.00	0.00	_	0.00	0.00	_	_	-	-	_	-
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00
Annual	-PAR 113	35-	_	_	_	_	_	— <i>B</i> -7	_	_	_	—	_	— Septen	nb <del>er</del> 2024	—

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Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	-	< 0.005	-	0.07	0.07	< 0.005	< 0.005	0.07
Demolition	—	—	—	—	_	0.00	0.00	_	0.00	0.00	_	—	_	_	_	-
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	-	-	-	-	_	-	-	-	-	_	-	-	_	_	-
Worker	0.02	0.02	0.39	0.00	0.00	0.08	0.08	0.00	0.02	0.02	_	83.0	83.0	< 0.005	< 0.005	84.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	144	144	0.01	0.02	151
Daily, Winter (Max)		-	-	-	-	_	-	-	-	-	_	-	-	_	_	-
Average Daily	_	-	-	-	_	_	-	-	-	-	_	-	-	-	_	-
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.22	0.22	< 0.005	< 0.005	0.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	0.39	0.39	< 0.005	< 0.005	0.41
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.04	0.04	< 0.005	< 0.005	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	0.07	0.07	< 0.005	< 0.005	0.07

# 3.3. Grading (2023) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

		<u> </u>	<b>,</b>		/		<u> </u>		,	/						
Location	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	_	_	_	_	_	—	—	—	_	_	—	—	—	—	—	_
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								0 / 00								

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Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_		_	_		_
Dust From Material Movement		_	_		_	0.00	0.00	-	0.00	0.00	_		_	_		
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	—	_	_	_	—			_	_	_		_	_		
Average Daily	_	-	-	—	-	—	—	—	—	—	—	-	—	_	—	—
Dust From Material Movement		_	_	_	_	0.00	0.00	_	0.00	0.00	_		_	_		
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Dust From Material Movement		_	_	_	_	0.00	0.00	_	0.00	0.00	_		_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	—	_	_	—	_	_	_	_	_	—	_	_
Daily, Summer (Max)	_	_	_	-	_	_		_	_	_	_		_	_		-
Worker	0.02	0.02	0.26	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	55.3	55.3	< 0.005	< 0.005	56.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	144	144	0.01	0.02	151
Daily, Winter (Max)			-					— B-9	-	-	_		_	 Septem	— 1ber 2024	_

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Average Daily	_	_	_	-	-	_	-	_	_	-	_		_	_		_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	-	0.15	0.15	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.39	0.39	< 0.005	< 0.005	0.41
Annual	—	—	—	—	—	—	—	-	-	—	-	—	-	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	-	0.02	0.02	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	0.07

# 3.5. Building Construction (2023) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

		<u>`</u>	<b>,</b>		,		<u> </u>	<b>,</b>								
Location	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Onsite	—	_	_	_	—	_	—	_	_	_	_	_	_	_	—	—
Daily, Summer (Max)		—	_		_	—	—	—	_	_	—	_	_	_	—	—
Off-Road Equipment	0.43	4.42	3.72	0.01	0.19	—	0.19	0.18	—	0.18	—	1,000	1,000	0.04	0.01	1,003
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Average Daily	_	—	—	—	—	—	—	—	—	_	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.74	2.74	< 0.005	< 0.005	2.75
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Annual	- <i>PAR 11</i>	35-	_	_	_	_	_	-B-10	_	_	_	_	_	— Septem	b <del>er</del> 2024	_

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Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	0.45	0.45	< 0.005	< 0.005	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	—	_	_	_	_	_	_
Daily, Summer (Max)	_	_		_	_	_	_	_	_	-	_	-	-	_	_	-
Worker	0.02	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.01	0.01	_	59.5	59.5	< 0.005	< 0.005	60.5
Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.2	25.2	< 0.005	< 0.005	26.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)		_		_	_	_	_	-	_	-	_	-	-	_	_	-
Average Daily	_	—	_	_	_	_	—	—	_	-	_	—	_	_	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.16	0.16	< 0.005	< 0.005	0.16
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	0.07
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.03	0.03	< 0.005	< 0.005	0.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	0.01	0.01	< 0.005	< 0.005	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00

# 4. Operations Emissions Details

- 4.10. Soil Carbon Accumulation By Vegetation Type
- 4.10.1. Soil Carbon Accumulation By Vegetation Type Unmitigated
- Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)  $\mathcal{B}_{AR}^{PAR}$

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Vegetation	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)		—								_	—					
Total	_	_	—	—	—	_	—	—	_	_	_	—	_	—	—	—
Daily, Winter (Max)		—			—	—	_		—	-	—		—		_	
Total	_	_	—	—	—	_	_	_	_	_	_	—	_	—	_	—
Annual	_	_	_	_	-	_	-	_	-	_	_	_	_	_	_	-
Total	_	_	_		_	_	_	_	_	_	_		_	_	_	_

### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
Daily, Summer (Max)	—				—				_	—	—					
Total	—	_		_	_			—	—	—	—	—				—
Daily, Winter (Max)					—						—					—
Total	-	—	—	—	-	—	—	—	_	_	-	_	—	—	—	-
Annual	-	_	_	_	_	_	_	_	-	-	—	_	_	_	_	-
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	CO2e
	PAR 113	35						<i>B-12</i>						Septeml	ber 2024	
								12 / 23						_		

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Daily, Summer (Max)				_		_	_		_				_	_		_
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	—	_	_
Sequester ed	_	—	_	—	—	—	—	_	—	—	_	_	—	—	_	—
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Removed	_	_	_	_	_	_	_	_	_	_	_		_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_		_	_		_
_	_	_	_	_	_	_	_	_	_	_	_		_	_		_
Daily, Winter (Max)																
Avoided	_	_	_	_	_	_	_		_	_	_		_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Sequester ed	—			_		_	—		—		_		_	—		—
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Removed	—	—	_	_	—	_	—	_	—	—	—	_	_	—	_	_
Subtotal	—	—	_	_	—	_	—	_	—	—	—	_	_	—	_	_
—	—	—	_	_	—	_	—	—	—	—	—	_	_	—	_	_
Annual	—	—	—	_	—	_	—	_	—	—	—	_	_	—	_	_
Avoided	—	—	—	—	—	_	—	—	—	—	—	_	_	—	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequester ed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	_	_	—	_	—	_	—	—	—	_	_	—	_	_
Subtotal	— PAR 113	5	_			_	_	— <sub>B-13</sub>	_	_	_		_	— Septemb	per 2024	-

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Final Subsequent Environmental Assessment

-	 	—	—	 _	_	_	_	—	_	 —	_	

## 5. Activity Data

## 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/1/2023	5/2/2023	5.00	1.00	—
Grading	Grading	5/1/2023	5/2/2023	5.00	1.00	—
Building construction	Building Construction	5/9/2023	5/10/2023	5.00	1.00	—

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backh oes	Diesel	Average	1.00	4.00	92.0	0.38
Building construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building construction	Forklifts	Diesel	Average	1.00	7.00	82.0	0.20

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Тгір Туре	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—		—	—
Demolition	Worker	6.00	18.5	LDA,LDT1,LDT2
Demolition	Vendor	0.00	10.2	HHDT,MHDT
Demolition PAR 1135	Hauling	2.00 <i>B-14</i>	20.0	HHDT September 2024

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Demolition	Onsite truck	0.00		HHDT
Grading	—	_	—	
Grading	Worker	4.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	0.00	10.2	HHDT,MHDT
Grading	Hauling	2.00	20.0	HHDT
Grading	Onsite truck	0.00	_	HHDT
Building construction	_	—	_	_
Building construction	Worker	6.00	13.2	LDA,LDT1,LDT2
Building construction	Vendor	1.00	7.75	HHDT,MHDT
Building construction	Hauling	0.00	20.0	HHDT
Building construction	Onsite truck	_	_	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated	Residential Exterior Area Coated	Non-Residential Interior Area	Non-Residential Exterior Area	Parking Area Coated (sq ft)
	(sq ft)	(sq ft)	Coated (sq ft)	Coated (sq ft)	

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

ebris)	Debris)		Material Demolished (sq. ft.)	Acres Paved (acres)
00	0.00	0.00	—	—
00	0.00	2.50	0.00	_
	B-1	15		September 2024
.0	0	0.00           0.00           0.00	0.00 0.00	D         0.00         0.00         —           D         0.00         2.50         0.00

### 5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

## 5.18. Vegetation

### 5.18.1. Land Use Change

### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
5.18.1. Biomass Cover Type			

### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
5.18.2. Sequestration		
5.18.2.1. Unmitigated		
PAR 1135	<i>B-16</i> 16 / 23	September 2024

Тгее Туре	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

## 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.34	annual days of extreme heat
Extreme Precipitation	3.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about <sup>3</sup>/<sub>4</sub> an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Sensitivity Score Adaptive Capacity Score V	
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding PAR 1135	N/A	N/A <i>B-17</i>	N/A	N/A September 2024

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Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum Callen Viros Screen score is 100. A high score (i.e., greater than 50) reflects a higher polletion burden compared to other census tracts in the state.

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Indicator	Result for Project Census Tract
Exposure Indicators	_
AQ-Ozone	32.1
AQ-PM	58.3
AQ-DPM	21.4
Drinking Water	36.2
Lead Risk Housing	1.80
Pesticides	66.6
Toxic Releases	88.2
Traffic	40.0
Effect Indicators	
CleanUp Sites	28.9
Groundwater	0.00
Haz Waste Facilities/Generators	19.2
Impaired Water Bodies	33.2
Solid Waste	80.0
Sensitive Population	
Asthma	29.1
Cardio-vascular	39.6
Low Birth Weights	14.2
Socioeconomic Factor Indicators	_
Education	17.8
Housing	4.25
Linguistic	22.9
Poverty	2.68
Unemployment	0.91

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	99.58937508
Employed	61.27293725
Median HI	98.56281278
Education	—
Bachelor's or higher	91.97998204
High school enrollment	100
Preschool enrollment	78.10855896
Transportation	—
Auto Access	98.98626973
Active commuting	10.49659951
Social	—
2-parent households	95.73976646
Voting	81.21390992
Neighborhood	_
Alcohol availability	80.94443732
Park access	81.35506224
Retail density	27.17823688
Supermarket access	28.17913512
Tree canopy	21.85294495
Housing	—
Homeownership	97.81855511
Housing habitability	99.80751957
Low-inc homeowner severe housing cost burden PAR 1135	91.71050943 B-20 September 2024

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Low-inc renter severe housing cost burden	99.08892596	
Uncrowded housing	96.93314513	
Health Outcomes	—	
Insured adults	98.58847684	
Arthritis	24.0	
Asthma ER Admissions	80.3	
High Blood Pressure	16.4	
Cancer (excluding skin)	6.6	
Asthma	91.1	
Coronary Heart Disease	43.7	
Chronic Obstructive Pulmonary Disease	74.0	
Diagnosed Diabetes	72.3	
Life Expectancy at Birth	74.3	
Cognitively Disabled	78.9	
Physically Disabled	74.5	
Heart Attack ER Admissions	66.1	
Mental Health Not Good	96.5	
Chronic Kidney Disease	64.9	
Obesity	93.4	
Pedestrian Injuries	19.6	
Physical Health Not Good	89.8	
Stroke	70.4	
Health Risk Behaviors	—	
Binge Drinking	55.6	
Current Smoker	96.2	
No Leisure Time for Physical Activity	90.4	
Climate Change Exposures		
PAR 1135	<i>B-21</i> September 2024 21/23	

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Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	94.0
Elderly	8.9
English Speaking	73.2
Foreign-born	36.6
Outdoor Workers	93.6
Climate Change Adaptive Capacity	_
Impervious Surface Cover	51.8
Traffic Density	31.1
Traffic Access	23.0
Other Indices	_
Hardship	1.0
Other Decision Support	_
2016 Voting	88.7

## 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	11.0
Healthy Places Index Score for Project Location (b)	97.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

Screen	Justification
Land Use	user-defined
Construction: Construction Phases	user-defined
Construction: Off-Road Equipment	user-defined
Construction: Dust From Material Movement	user-defined
Construction: Trips and VMT	user-defined
Characteristics: Project Details	The average windspeed and precipitation days per year are obtained for the city of Avalon from the November 2018 Final Mitigated SEA for Rule 1135 Appendix B.

## **APPENDIX C-1**

## **CEQA Impact Evaluations – Assumptions and Calculations**

**Construction Summary** 

#### Appendix C-1

#### CEQA Construction Impact Evaluations - Assumptions and Calculations

#### **Criteria Pollutant Emissions Summary**

PAR 1135 Requirement	VOC	NOx	CO	SOx	PM10	PM2.5
PAR 1155 Requirement	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
November 2018 Final Mitigated SEA: Facility 1	0.40	5.00	3.10	0.00	0.30	0.20
PAR 1135: Facility 2	9.46	67.99	52.49	0.15	4.97	3.87
November 2018 Final Mitigated SEA: Facility 3	N/A	N/A	N/A	N/A	N/A	N/A
November 2018 Final Mitigated SEA: Facility 4	0.40	5.00	3.10	0.00	0.30	0.20
November 2018 Final Mitigated SEA: Facility 5	0.40	5.00	3.10	0.00	0.30	0.20
November 2018 Final Mitigated SEA: Facility 6	N/A	N/A	N/A	N/A	N/A	N/A
Peak Day - Worst Case Construction Emissions from PAR 1135	9.46	67.99	52.49	0.15	4.97	3.87
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55

Notes:

1. Facility 2 is the only affected facility by PAR 1135.

2. No further construction activities are currently expected at other facilities (i.e., Facilities 1, 3, 4, 5 and 6) that were previously analyzed in the November 2018 Final Mitigated SEA.

3. Facility 3 has already indicated that their repower project includes the shutting down and removal of their 3 existing boilers by January 1, 2024; and installing a set of batteries and 3 new prime natural gas IC engines. Because Rule 1135 does not apply to prime natural gas IC engines and batteries, this SEA will not analyze the air quality impacts associated with installing and operating such equipment at Facility 3.

4. Facility 6 has permanently shut down (instead of catalyst module replacement in SCR of their simple cycle turbine) their turbine as of the beginning of 2020. Therefore, this SEA will not analyze the air quality impacts associated with construction activities at this facility to comply with Rule 1135.

#### **GHG Emissions Summary**

CO2,	CH4,	N2O,	CO2e,	Amortized	
MI/yr	MI/yr	MI/yr	MI/yr	CO2e (MT/yr)	
5.5	0.0	0.0	5.5		
115.76	0.01	0.00	116.25		
1.4	0.0	0.0	1.4		
6.8	0.0	0.0	6.9		1
129	0	0	130	4.33	Total GHG Emissions Amortized over 30 Ye
	MT/yr 5.5 115.76 1.4 6.8	MT/yr         MT/yr           5.5         0.0           115.76         0.01           1.4         0.0           6.8         0.0	MT/yr         MT/yr         MT/yr           5.5         0.0         0.0           115.76         0.01         0.00           1.4         0.0         0.0           6.8         0.0         0.0	MT/yr         MT/yr         MT/yr         MT/yr           5.5         0.0         0.0         5.5           115.76         0.01         0.00         116.25           1.4         0.0         0.0         1.4           6.8         0.0         0.0         6.9	MT/yr         MT/yr         MT/yr         MT/yr         CO2e (MT/yr)           5.5         0.0         0.0         5.5           115.76         0.01         0.00         116.25           1.4         0.0         0.0         1.4           6.8         0.0         0.0         6.9

Notes:

1. Facility 2 is the only affected facility by PAR 1135.

2. Construction-related GHG emissions for Facilities 1, 4, and 5 are from the Appendix C of the November 2018 Final Mitigated SEA for Rule 1135.

3. Construction-related GHG emissions are amortized over 30 years.

## **APPENDIX C-2**

## **CEQA Impact Evaluations – Assumptions and Calculations**

**Operation Summary** 

Appendix C-2 CEQA Operation Impact Evaluations - Assumptions and Calculations

#### Criteria Pollutant Emissions Summary

PAR 1135 Requirement	VOC (lbs/day)	NOx (Ibs/day)	CO (Ibs/day)	SOx (Ibs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)
PAR 1135- Peak daily NOx emission reductions foregone: Facility 2	N/A	319.45	N/A	N/A	N/A	N/A
The November 2018 Final Mitigated SEA: Facility 1	0.08	0.52	0.34	0.00	0.03	0.02
The November 2018 Final Mitigated SEA: Facility 4	0.08	0.52	0.34	0.00	0.03	0.02
The November 2018 Final Mitigated SEA: Facility 5	0.08	0.52	0.34	0.00	0.03	0.02
Peak Day - Worst Case Operational Emissions	0.2	321.0	1.0	0.0	0.1	0.1
SIGNIFICANCE THRESHOLD FOR OPERATION	75	100	550	150	150	55

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#### GHG Emissions Summary

	CO2,	CH4,	N2O,	CO2e,
PAR 1135 Requirement	MT/yr	MT/yr	MT/yr	MT/yr
November 2018 Final Mitigated SEA: Facility 1	0.54	0.00	0.0	0.54
PAR 1135: Facility 2*				1097.92
November 2018 Final Mitigated SEA: Facility 4	0.13	0.00	0.00	0.13
PAR 1135: Facility 5	0.98	0.00	0.00	0.98
Total Emissions During Operation	1.65	0.00	0.00	1099.57

10 of all Embisions Journing Operation
 Notes:
 1. Facility 2 is the only affected facility by PAR 1135.
 2. Operation-related GHG emissions for Facilities 1, 4, and 5 are from the Appendix C of the November 2018 Final Mitigated SEA for Rule 1135.
 3. For Facility 2, the maximum incremental increases in GHG emissions from the power producing units was summed up with the maximum GHG impacts due to barge trip for fuel delivery to Island to estimate the total operational GHG emissions at Facility 2.

\* Operational GHG emission at Facility 2= (Peak annual GHG emissions from Facility 2 operation- CARB 2023 GHG emission data as Facility 2 baseline)+maximum annual GHG emissions from additional barge trips for fuel delivery to Santa Catalina Island

		Facility	2 Operation (data provid	led by SCE)						
				Using Petroleu	m Diesel			Using R9	9 Renewable Die	sel
PAR 1135	Unit	Fuel Consumption (gal)	Project CO2 Emissions using Diesel No. 2, where applicable (Metric tons)	Project CH4 Emissions using Diesel No. 2, where applicable (Metric tons)	Project N2O Emissions using Diesel No. 2, where applicable (Metric tons)	Project CO2e (Metric tons)	Project CO2 Emissions (Metric tons) <sup>1</sup>	Project CH4 Emissions (Metric tons)	Project N2O Emissions (Metric tons)	Project CO2e (Metric tons)
	New Diesel T4F	1,605,730	16,394.50	0.66	0.13	16,451.22	163.95	0.66	0.13	220.66
Stage 1	Older Diesel ICEs	674,252	6,884.11	0.28	0.05	6,907.93	68.84	0.28	0.05	92.66
45 TPY	Microturbines	208,689	1,185.35	0.06	0.01	1,190.72	1,185.35	0.06	0.01	1,190.72
	Total	2,488,671	24,463.97	0.99	0.19	24,549.87	1,418.14	0.99	0.19	1,504.04
	New Diesel T4F	1,958,207	19,993.29	0.80	0.16	20,062.46	199.93	0.80	0.16	269.10
Stage 2	Older Diesel ICEs	240,972	2,460.32	0.10	0.02	2,468.84	24.60	0.10	0.02	33.11
30 TPY	Microturbines	208,689	1,185.35	0.06	0.01	1,190.72	1,185.35	0.06	0.01	1,190.72
	Total	2,407,868	23,638.97	0.96	0.19	23,722.01	1,409.89	0.96	0.19	1,492.93
Stage 3	New Diesel T4F	1,207,137	12,324.87	0.49	0.10	12,367.50	123.25	0.49	0.10	165.88
13 TPY	NZE	1,500,000	8,520.00	0.42	0.09	8,558.58	8,520.00	0.42	0.09	8,558.58
13 IFT	Total	2,707,137	20,844.87	0.91	0.19	20,926.08	8,643.25	0.91	0.19	8,724.46
	New Diesel T4F	495,721	5,061.31	0.20	0.04	5,078.82	50.61	0.20	0.04	68.12
Stage 4	NZE	1,500,000	8,520.00	0.42	0.09	8,558.58	8,520.00	0.42	0.09	8,558.58
6 TPY	ZE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	1,995,721	13,581.31	0.62	0.13	13,637.40	8,570.61	0.62	0.13	8,626.70
Maximum G							8 724 46			

Nexmum Units impacts 1) Per CARB guidance, 99% of R99 diese is considered biogenic, while I'W is anthropogenic. Only the anthropogenic portion of CO is considered here [https://ww2.arb.ca.gov/sites/default/files/2023-12/2000\_2021\_gb\_\_liventory.tends.pdf). I rest of the anthropogenic of the site of the site of the anthropogenic portion of CO is considered here [https://ww2.arb.ca.gov/sites/default/files/2023-12/2000\_2021\_gb\_\_liventory.tends.pdf).

#### 2023 CARB GHG Reporting

ubpart C: General Stationary Fuel Combustion								
Gas Information Details								
Gas Name	Gas Quantity (Metric Tons)							
Methane	0.929852							
Exempt Biogenic Carbon dioxide	1,337.82485							
Nitrous Oxide	0.183977	l l						
Carbon Dioxide	22,100.419714							
Total CO2e	23,516.316151							

#### CARB/EPA GHG Emission Factors

CO2 Emission Factor for Diesel No.2 (kg/gal)	CH4 Emission Factor for Diesel No.2 (g/gal)	N2O Emission Factor for Diesel No.2 (g/gal)
10.21	0.41	0.08
CO2 Emission Factor for LPG (kg/gal)	CH4 Emission Factor for LPG (g/gal)	N2O Emission Factor for LPG (g/gal)
5.68	0.28	0.06
Emission Easters for Cro	onhouse Ges Invent	orion (one coul)

		CO2,	CH4,	N2O,	CO2e,
Facility 2 operation	Increased number of barge trips	MT/yr	MT/yr	MT/yr	MT/yr
Stage 1: 45 tpy	29	64.15093984	0.002475657	0.000618914	64.37119595
Stage 2: 30 tpy	19	42.0299261	0.001621982	0.000405496	42.17423183
Stage 3: 13 tpy	26	57.51463572	0.002219554	0.000554889	57.71210671
Maximum GHG impacts					64.37119595

GHG emissions from a barge trip were estimated from the data provided by Facility 2; but the load factor for the main engines was adjusted from 85% to 50%.

## **APPENDIX C-3**

## **CEQA Impact Evaluations – Assumptions and Calculations**

**Construction (Facility 2)** 

3.87 Amortized over 30 Years

#### Appendix C-3

#### CEQA Construction Impact Evaluations - Construction Emissions at Facility 2

Criteria Pollutant Emissions

PAR 1135 Requirement		NOx	CO	SOx	PM10	PM2.5
PAR 1135 Requirement	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Replacing an Existing Microturbine with a Linear Generator or Fuel Cell <sup>1</sup>	0.5	4.5	4.0	0.0	0.3	0.2
Replacing an Existing Diesel Engine and SCR with a New Diesel Engine and SCR <sup>2</sup>	4.3	40.0	27.0	0.1	3.4	2.3
1-Barge Round Trip to Transport Construction Equipment and Material <sup>3</sup>	5.2	28.0	25.5	0.0	1.6	1.6
Daily Peak Construction emissions <sup>4</sup>	9.5	68.0	52.5	0.1	5.0	3.9
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55

Notes: 1. The construction emissions from a linear generator installation are estimated using CalEEMod.

2. From the November 2018 Final Mitigated SEA for Rule 1135

3. Criteria pollutant emissions from a barge trip were derived according to the data provide by Facility 2

4. On a peak day, there will be either a diesel engine replacement or a linear generator/fuel cell installation. As a worst case scenario, the barge roundtrip is assumed to occur on the same day as the installation of one new engine, linear generator: or fuel cell.

#### GHG Emissions Summary

	CO2,	CH4,	N2O,	CO2e,
PAR 1135 Requirement	MT/yr	MT/yr	MT/yr	MT/yr
1 Linear Generator Installation <sup>1</sup>	0.76	0.00	0.00	0.77
5 Linear Generator Installation	3.80	0.00	0.00	3.85
3 Fuel Cell Installation <sup>2</sup>	2.28	0.00	0.00	2.31
Replacing 3 Existing Diesel Engines and SCRs with 3 New Diesel Engines and SCRs <sup>3</sup>	10.14	0.00	0.00	10.20
45 Barge Round Trip to Transport Construction Equipment and Material <sup>4</sup>	99.54	0.00	0.00	99.89
Total Emissions During Construction <sup>5</sup>	115.76	0.01	0.00	116.25
Notes:				

1. The construction-related GHG emissions from a linear generator installation are estimated using CalEEMod.

2. The construction-related GHG emissions from installing a fuel cell was assumed to be the same as installing a linear generator.

3. From the November 2018 Final Mitigated SEA for Rule 1135

4. Barge-related GHG emissions were estimated according to the data provided by Facility 2.

5. Total construction-related GHG emissions are amortized over 30 years.

Note: PAR 1135 is expected to require 45 additional barge trips during construction to bring three new Tier 4 diesel engines, five linear generators, three fuel cells, and other construction equipment to Santa Catalina Island.

#### Appendix C-3

CEQA Construction Impact Evaluations - Linear Generator Installation at Facility 2

Emissions Summary - Linear Generator installation at Facility 2

PAR 1135 Requirement		NOx	CO	SOx	PM10	PM2.5
PAR 1155 Requirement	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Replacing an Existing Diesel Engine or Microturbine with a Linear Generator	0.5	4.5	4.0	0.0	0.3	0.2
Daily Peak Construction Emissions	0.5	4.5	4.0	0.0	0.3	0.2
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55
	75	100				

Notes:

1. The emissions are estimated using CalEEMod.

2. Equipment demolition and installation is expected to occur on different days in multiple stages.

3. This analysis is conservative as minimal overlap is expected to occur among the installation of each linear generators.

GHG Emissions Summary - Linear Generator installation at Facility 2

	CO2,	CH4,	N2O,	CO2e,	
PAR 1135 Requirement	MT/yr	MT/yr	MT/yr	MT/yr	
1 Linear Generator Installation	0.76	0.00	0.000	0.77	
5 Linear Generator Installation	3.80	0.00	0.00	3.85	
Total Emissions During Construction	3.80	0.00	0.00	3.85	0.128333 Amortized over 30 Years

Notes:

1. The emissions are estimated using CalEEMod.

2. Construction emissions are amortized over 30 years.

#### Appendix C-3

CEQA Construction Impact Evaluations - Barge trips

Marine Vessel (Barge) Emissions - Catalina Provider (provided by SCE)									st AQMD
Pollutant	EF (main)	DR (main)	EFD (main)	EF (aux)	Peak at Sea	Peak at Berth	Peak Day	Peak at Sea (Adjusted)	Peak Day (Adjusted)
	g/BHP-hr	g/BHP-hr-hr	g/BHP-hr	g/BHP-hr	lbs/hr	lbs/hr	lbs/day	lbs/hr	lbs/day
ROG	0.09	0.000023	0.544	0.58	2.15	0.05	8.7	1.26	5.16
NO <sub>x</sub>	2.32	0.00003	2.913	3.6	11.65	0.29	47.2	6.85	27.99
CO	2.61	0	2.61	3.73	10.58	0.3	42.94	6.22	25.49
SO <sub>2</sub>	0.005	0	0.005	0.005	0.02	0	0.08	0.01	0.05
Exhaust PM <sub>10</sub>	0.088	0.0000044	0.175	0.077	0.66	0.01	2.66	0.39	1.57
Exhaust PM <sub>2.5</sub>	0.087	0.0000044	0.174	0.076	0.66	0.01	2.64	0.39	1.57
CO <sub>2</sub>	517.72	0	517.72	517.72	2,037.12	42.23	8,232.93	1198.31	4877.68
CH₄	0.021	0	0.021	0.021	0.08	0	0.33	0.05	0.19
N <sub>2</sub> O	0.004	0	0.004	0.004	0.02	0	0.07	0.01	0.05
CO <sub>2</sub> e (AR4)	519.497	0	519.497	519.497	2,044.11	42.38	8,261.19	1202.42	4894.43

#### Data and Parameters:

Main engine power rating at sea

1657.5 3 x Caterpillar C-16, 650 BHP, Tier 3, 85% LF, Carl Moyer Table D-9, Eqn. C-6

South Coast AQMD reviewed the data provided by SCE and compared it to load factor (LF) data specific to barges from the Port of Los Angeles and Port of Long Beach, San Pedro Bay Ports Emission Inventory Methodology Report, Table 3.1: Harbor Craft Engine Load Factors, which indicated that a load factor of 50% was more appropriate. The revised calculations are shown in the "Peak at Sea (Adjusted)" and "Peak Day (Adjusted)" columns.

Auxiliary engine power rating at sea Auxiliary engine power rating at berth Hours per round trip (daily at sea) Hours per round trip (daily at berth) No. of extra trips for project Deterioration hours per year (Mains) Deterioration years in 2024 DPM emissions at Berth 127.3 2 x 148 BHP, Tier 3, 43% LF, Carl Moyer Table D-18, Eqn. C-6 37.0 1 x 148 BHP, Tier 3, 25% LF, Carl Moyer Table D-18, Eqn. C-6 4 per South Coast AQMD PAR 1135 SEA, Appendix C-5 2 per vessel operation, for 1 auxiliary engine, 25% LF 12 4 trips/unit x 3 units 1040 1 trip/day, 5 days/week, 52 weeks/yr (assumed) 19 since 2006 (max possible age assumed) 0.15 lbs total (all 3 units)

#### Notes:

\*The Catalina Provider is operated by Avalon Freight Services and has three Caterpillar Tier III engines that are 650 horsepower (HP) each. Additionally, the barge is equipped with two 148 HP Tier III auxiliary engines (assume same age) \* Mains ROG, NOx, PM10 per Carl Moyer Guidelines (2017) Table D-9; Equation C-6 \*Aux ROG, NOx, PM10 per Carl Moyer Guidelines (2017) Table D-17b; Equation C-6 \*EF: Emission Factor; DR: Deterioration Rate; EFD: Emission Factor, Deteriorated \*PM2.5 = 99% of PM10 per SCAQMD LST \*CO per EPA Tier 3 standards SO2 for 15 ppmw S ULSD \*GHGs per 40 CFR 98 Subpart C GWPs per IPCC AR4 \*Heat rate = 7,000 BTU/BHP-hr per AP-42 Table 3.3-1 \*HHV = 19,300 BTU/lb per AP-42 Table 3.3-1

## **APPENDIX C-4**

## **CEQA Impact Evaluations – Assumptions and Calculations**

Energy

### Appendix C-4

CEQA Energy Impact Evaluations - Assumptions and Calculations

GHG emissions from a barge trip (kg CO2)	Default CO <sub>2</sub> emission factors (kg CO2/mmbtu) <sup>1</sup>	Default high heat value (mmbtu/gal) <sup>1</sup>	Diesel Fuel Consumption (gal)						
4877.68	73.96	0.138	477.90						
1. From Table C-1 to Subpart C of Part 98—Default CO2 Emission Factors and High Heat Values for Various Types of Fuel									

Fuel Use by a Barge (gal) = GHG Emissions from a Barge trip (Kg CO2) x CO2 Emission Factors (kg CO2/mmbtu) x Default High Heat Value (mmbtu/gal)

Fuel type	Phase	Expected incremental increases in fuel consumption by PAR 1135 (mmgal)	Estimated consumption by November 2018 Final Mitigated SEA (mmgal) <sup>1</sup>	Estimated consumption by PAR 1135	% above baseline	Exceeding threshold?
Diesel	Construction	0.0201	0.0772	0.0973	0.0130	NO
	Operation	0.0139	0.0017	0.0156	0.0021	NO
Gasoline	Construction		0.0007	0.0007	0.00001	NO
	Operation					

Operation
 Operation
 Operation
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## **APPENDIX D**

Air Quality Impact Analysis and Health Risk Assessment – Assumptions and Calculations

## 1. INTRODUCTION

Compliance with PAR 1135 is expected to be achieved through replacement of three existing diesel engines with three new Tier 4 Final diesel engines, replacement of existing remaining diesel engines and microturbines with NZE units, and installing ZE technologies such as solar batteries and PV cells at the electricity generating facility located on Santa Catalina Island.

It should be noted that there is limited land available on Santa Catalina Island to accommodate the installation of solar PV cells, as most open land on the island is mountainous and solar energy production is optimal when the equipment is sited on flat land. A potential site on Santa Catalina Island for the installation of solar PV cells or other ZE and/or NZE technologies, is Middle Ranch. Middle Ranch is approximately 15 acres, which can accommodate solar PV installations that could provide approximately 30% of historical power generation needed for Santa Catalina Island. However, because the facility is still in discussions with the Catalina Island Conservancy, the owner of the Middle Ranch property, it would be speculative to analyze the environmental impacts associated with the installation of solar PV cells on Santa Catalina Island. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of the environmental impacts associated with installing solar PV cells is concluded to be speculative and will not be evaluated further in this SEA.

This appendix provides a comprehensive overview of the methodology used in conducting the Air Quality Impact Analysis (AQIA) and Health Risk Assessment (HRA) from the operation of three new Tier 4 Final diesel engines. Tables D-1 and D-2 present the stack parameters and criteria pollutant emissions factors (for a full-time, 24 hour, and 365 day per year operation scenario) for the three new Tier 4 Final diesel engines according to the data provided by the electricity generating facility located on Santa Catalina Island, respectively.

Stack Parameters						
Modeled Source	Stack Height (m)	Exhaust Temperature (K)	Exit Velocity (m/s)	Stack Diameter (m)		
Each of the Three New Tier 4 Final Diesel Engines	11.73	730.4	22.97	0.61		

Table D-1 Stack Parameters

Table D-2Criteria Pollutant Emissions Factors

	NOx		SO <sub>2</sub>	PM10/PM2.5		СО	
Source	1-hour	Annual	1-hour/ 24-hour	24-hour	Annual	1-hour/ 8-hour	
Each of the Three New Tier 4 Final Diesel Engines	1.55E+00	5.21E-01	4.18E-03	9.12E-03	9.12E-03	9.03E-01	

The following sections (i.e., Sections 2 and 3) of this Appendix were prepared by SLR International Corporation and reviewed by South Coast AQMD.

## 2. AIR DISPERSION MODEL SELECTION

Selection of the appropriate dispersion model for use in the analysis was based on the available meteorological input data, the physical characteristics of the permit unit that is to be simulated, the land use designation in the vicinity of the facility, the complexity of the nearby terrain, and applicable guidance to be used for demonstrating compliance with CEQA requirements.

Overall, the current version of the U.S. EPA-approved American Meteorological Society/U.S. EPA Regulatory Model (AERMOD) modeling system was implemented to meet the dispersion modeling requirements for this analysis. AERMOD is recommended for use in modeling multi-source emissions, and can account for plume downwash, stack tip downwash, and point, area, and volume sources(U.S. EPA 2022; 2017).

Current version numbers of the AERMOD model and pre-processors that were used are:

- AERMAP Version 18081
- AERMOD Version 22112

## **2.1. MODEL INPUT OPTIONS**

The U.S. EPA and South Coast AQMD regulatory default dispersion options were used in the analyses. AERMOD's non-default urban option was not used because the land use within a 3 kilometer (km) radius of the facility (including the over-water areas northeast and east of the PBGS) is generally undeveloped. This determination was made based on a qualitative analysis of aerial imagery following U.S. EPA procedures and a quantitative analysis of National Land Cover Database (NLCD) data.

In 40 CFR Part 51, Appendix W, Section 7.2.1.1(b)(i), U.S. EPA recommends that land use within 3-km of the source be evaluated to determine what percentage of the area is comprised of "urban" land use types following the Auer land use typing scheme. If urban land use types account for 50% or more of the 3-km area, the use of urban dispersion coefficients is justified. Otherwise, default dispersion coefficients should be used. Urban land use types under the Auer scheme include:

- Heavy Industrial;
- Light/Moderate Industrial;
- Commercial;
- Compact Residential (Single Family); and
- Compact Residential (Multi-Family)

All other land use types are considered rural. Figure D-1 shows an aerial photograph of Catalina Island and a 3-km radius around PBGS. Inspection of the aerial imagery within the 3-km radius indicates that the land use is greater than 50 percent open water and undeveloped land. Therefore, default dispersion coefficients are recommended.

A quantitative analysis using the U.S. EPA surface characteristics preprocessor, AERSURFACE, was also conducted. AERSURFACE uses NLCD data to calculate the surface roughness lengths within a prescribed radius. AERSURFACE outputs, in a log file, a table of the land cover counts

of grid cells within the prescribed radius. These data can be used to calculate the percentage of urban and rural land use types.

For this analysis, AERSURFACE was run using a 3-km radius around PBGS. Urban land use types in the NLCD data include:

- Developed, open space;
- Developed, low intensity;
- Developed, medium intensity; and
- Developed, high intensity

All other land use types are considered rural. Figure D-2 shows an aerial photo of Catalina Island overlaid with the NLCD data and a 3-km radius around PBGS. Table D-3 presents the land cover counts from the AERSURFACE log file and the percentage of the total for each land use type. The data show that 94 percent of the 3-km area is rural.

Based on the visual inspection of the aerial photo and the land use analysis using ERSURFACE, the land use within the 3-km area surrounding PBGS is rural and therefore, default dispersion coefficients were used in the modeling analysis.

Other dispersion modeling methods followed U.S. EPA procedures and guidance as well as the South Coast AQMD's AERMOD modeling guidelines.

LAND USE TYPE	URBAN/RURAL	GRID CELL COUNT	PERCENT TOTAL
Open Water	Rural	17,722	56
Developed, Open Space	Urban	556	2
Developed, Low Intensity	Urban	559	2
Developed, Medium Intensity	Urban	428	1
Developed, High Intensity	Urban	176	1
Barren Land (Rock/Sand/Clay)	Rural	866	3
Deciduous Forest	Rural	1	< 1
Evergreen Forest	Rural	62	< 1
Mixed Forest	Rural	1,548	5
Shrub/Scrub	Rural 8,195		26
Grasslands/Herbaceous	Rural	1,307	4
Emergent Herbaceous Wetlands	Rural	1	< 1
Total	Rural Urban	29,702 1,719	94 6

Table D-3AERSURFACE Land Use Counts within 3-km of PBGS

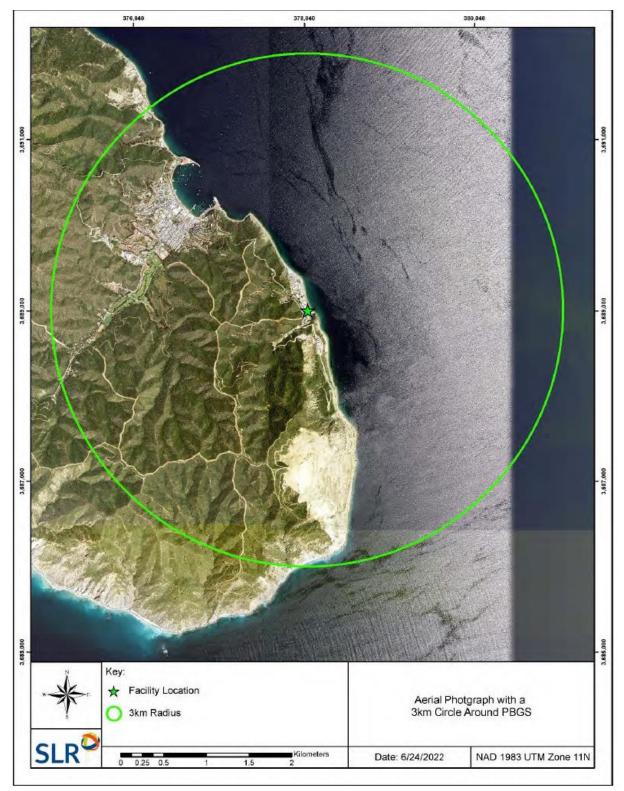


Figure D-1 3 km Area Surrounding PBGS

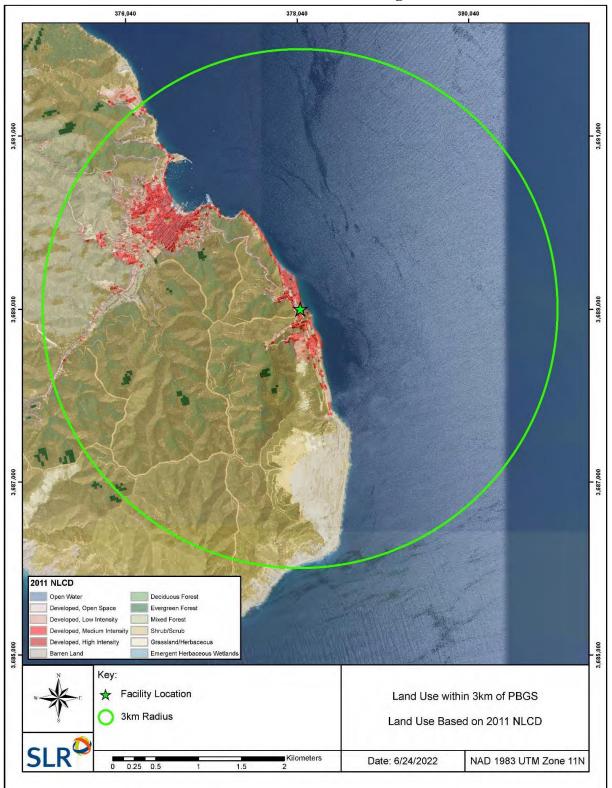


Figure D-2 NLCD Data with 3-km Surrounding PBGS

### 2.2. PLUME DOWNWASH

Each of the three new Tier 4 Final diesel engines was modeled as a point source and the effects of plume downwash were accounted for in the analysis. Direction-specific building dimensions were calculated using the current version of the U.S. EPA-approved Building Profile Input Program (BPIPPRM Version 04274). PBGS and nearby off-site structure dimensions and heights were obtained from the recent Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB2588) HRA for the PBGS (SLR 2019) that was approved by the South Coast AQMD.

In addition to calculating direction-specific building dimensions, the BPIPPRM program also calculates the Good Engineering Practice (GEP) stack height. The PBGS stack heights were checked to verify that they are within the GEP stack height limit.

A simplified plot plan of the PBGS facility showing the locations of all modeled structures and emission sources is provided in Figure D-3.

### 2.3. METEOROLOGICAL DATA

Site-specific meteorological observations that are considered suitable for regulatory dispersion modeling are not available for the PBGS area. The nearest National Weather Service observing station is located at the Avalon Airport, which is several kilometers inland in complex terrain with very little coastal influence. The wind and temperature data at the airport are not considered representative of the Pebbly Beach area and were therefore not used.

Since there are no site-specific meteorological observations in the PBGS area, the South Coast AQMD provided one calendar year (2018) of prognostic data from the Weather Research and Forecasting (WRF) model for a grid node west of PBGS, near the Avalon Country Club. The 2018 WRF output was processed by South Coast AQMD using the Mesoscale Model Interface Program (MMIF) program and South Coast AQMD provided the surface and profile files to be used as input to AERMOD.

### 2.4. PROPERTY BOUNDARY

The PBGS property boundary was digitized using aerial imagery and plot plans provided by SCE for the 2019 HRA. The property boundary was used to define the receptor network described in Section 2.5. The PBGS property boundary is shown in Figure D-3.

# 2.5. RECEPTOR NETWORK2.5.1. CRITERIA POLLUTANT RECEPTORS

For criteria pollutant modeling, Cartesian receptor grids centered on the PBGS were defined using Universal Transverse Mercator (UTM) Zone 11 North American Datum 1983 (NAD83) coordinates. For purposes of air dispersion modeling, the NAD83 spatial reference system is equivalent to WGS840F0F<sup>1</sup>. The grids were designed to resolve the highest predicted pollutant impacts while at the same time allowing for reasonable execution time. Several receptor grids of

<sup>&</sup>lt;sup>1</sup> U.S.EPA, See AERMAP User's Guide (EPA 454/B 18 004), Section 2.1.

varying resolution were defined following guidance found in South Coast AQMD (2022a). The grids consisted of a set of nested receptors placed at:

- 20-m spacing along the property boundary;
- 50-m resolution extending to approximately 500 m from the property boundary;
- 100-m resolution extending to approximately 1 km from the property boundary; and
- 250-m resolution extending to approximately 5 km from the property boundary.

Receptor elevations and scale heights were obtained using the AERMAP terrain processor. The digital elevation dataset provided as input to AERMAP was the National Elevation Dataset (NED) data at 1/3 arc second resolution, which is equivalent to approximately 10 m in the project area. Receptor elevations obtained from AERMAP were reviewed for reasonableness against Google Earth elevations or 7.5-minute topographic maps. Figure D-4 and Figure D-5 show the far-field and near-field views of the receptor grids, respectively.



Figure D-3 Facility Site Layout

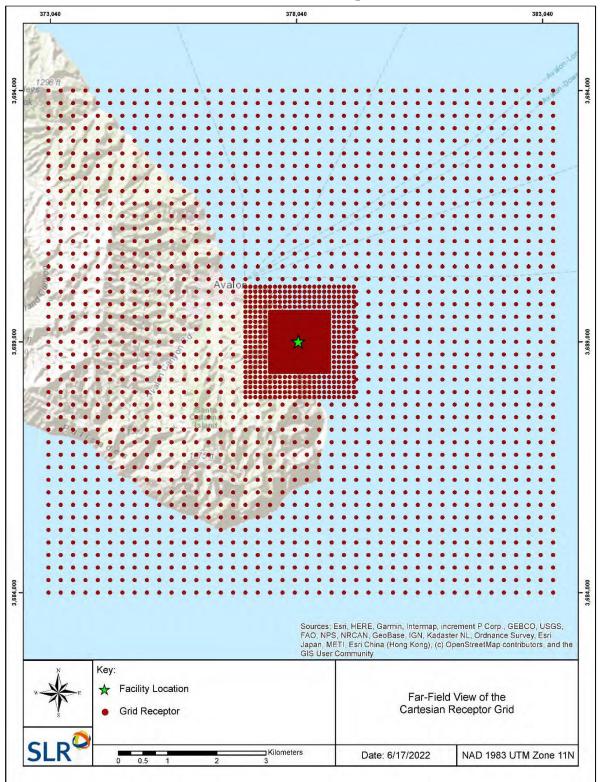


Figure D-4 Far-Field View of the Receptor Grid

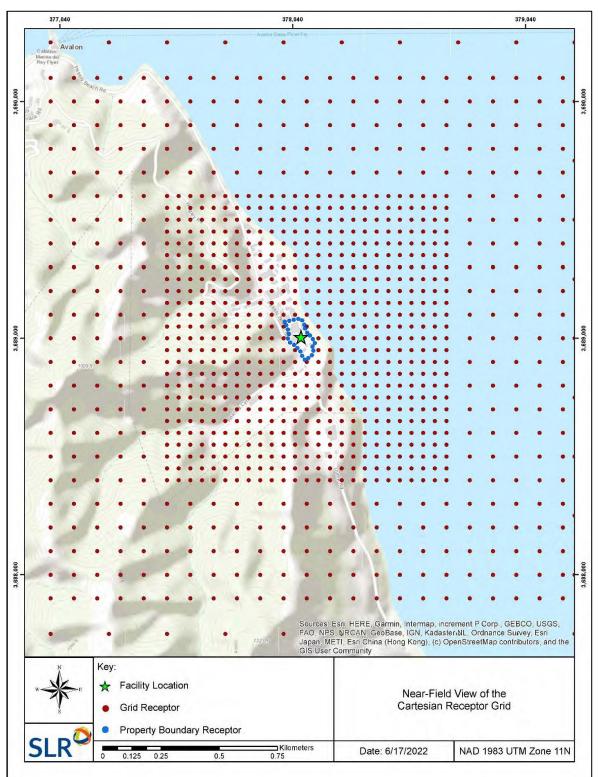


Figure D-5 Near-Field View of the Receptor Grid

## 2.5.2. HEALTH RISK ASSESSMENT RECEPTORS

For the HRA, the same receptor grids in the approved 2019 HRA (SLR 2019) were used. These grids have been developed to estimate the risks for potentially exposed portions of the community. Residential, off-site worker, and sensitive receptor areas require different exposure assumptions for cancer risk in the HRA; therefore, several receptor sets were generated in the following areas:

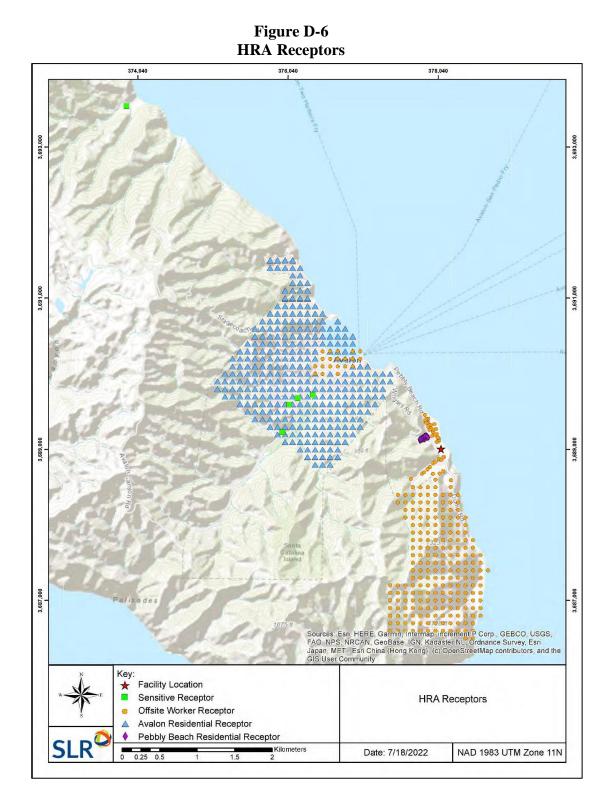
- Existing and potential residential areas within the populated portion of the City of Avalon residential zoning area. Residential receptors were included in Avalon Harbor. Receptors were placed at 100-m spacing within the residential zoning area.
- Existing and potential off-site worker areas along Pebbly Beach Road, the Avalon business district, and industrial facilities south of the PBGS. Existing businesses were placed at their approximate locations based on aerial photographs. Receptors located in the Avalon business district and a quarry area south of the PBGS were placed at 100-m spacing.
- Existing residential locations at Pebbly Village (Santa Catalina Island Company employee housing area). Receptors were placed at 20-m spacing within this area using aerial photographs.
- Sensitive receptor locations consisted of schools including preschools and daycare centers; health facilities such as hospitals; retirement and nursing homes; long term care hospitals; and hospices. Sensitive receptor locations were identified from internet searches and the street addresses were converted to UTM Zone 11, NAD83 coordinates for input to AERMAP. Table D-4 presents the sensitive receptors that will be included in the HRA.

Receptor	UTM Easting <sup>1</sup> (m)	UTM Northing <sup>1</sup> (m)
Avalon K-12 School	376052	3689595
Preschool Learning for Avalon Youth	375964	3689230
Catalina Island Marine Institute	373890	3693544
Catalina Island Medical Center	376165	3689682
Catalina Kid Ventures Child Care	376370	3689724

Table D-4Sensitive Receptor Locations

<sup>1</sup> Coordinates are in UTM Zone 11, NAD83.

The receptor locations were generated in UTM Zone 11, NAD83 coordinates. Receptor elevations and scale heights will be obtained using the AERMAP terrain processor consistent with the methodology in Section 2.5.1. The HRA receptor grids are shown in Figure D-6. Refer to the approved 2019 HRA report for further details regarding the adequacy of the HRA receptors grids for evaluating potential public exposure to PBGS emissions.



## 2.6. BACKGROUND CONCENTRATIONS

Since recent ambient monitoring data are not available on Catalina Island, current monitoring stations along the Southern California mainland were evaluated for use as background concentrations in the criteria pollutant modeling. The area around the PBGS project site contains mostly open space/ocean and light industrial development along Pebbly Beach Road. Land use around the available mainland air monitors was reviewed to identify monitors that would provide adequately representative1F1F<sup>2</sup> background data while not being overly influenced by heavy industrial or urban development, where possible. This section provides is a discussion of the monitor selection. Monitor design concentrations from the most recent three years of data (2018- $20202F2F^3$ ) are provided in Table D-5.

Pollutant	Averaging Period	Design Concentration	SITE	AQS ID	
	0.0	(µg/m <sup>3</sup> )			
NO <sub>2</sub> <sup>1</sup>	1-hour	-	El Rio	06-111-3001	
	Annual	9.4	LINU	00-111-3001	
CO -	1-hour	1,145	Mission Viejo	06-059-2022	
	8-hour	916	witssion viejo	00-039-2022	
SO <sub>2</sub>	1-hour	7.9	Los Angeles	06-037-1103	
	24-hour	2.5	Los Angeles	00 037-1105	

Table D-5Ambient Monitor Design Concentrations (2018-2020)

1. 1-hour NO<sub>2</sub> background concentrations are included in the modeling using seasonal-diurnal values. See Section 2.6.3.

## 2.6.1. CARBON MONOXIDE AND SULFUR DIOXIDE

SLR reviewed monitors within the South Coast AQMD, and in adjacent Air Districts, for coastal locations that would be representative of the PBGS project area. There are no active CO monitors at or near coastal locations within the search area; therefore, the following four monitors were considered as possible locations to provide ambient concentrations for the modeling analysis:

- Compton (AQS ID# 06-037-1302)
- Anaheim (AQS ID# 06-05-0007)
- Anaheim Near Road (AQS ID# 06-059-0008)
- Mission Viejo (AQS ID# 06-059-2022)

The land use surrounding all four sites is largely dense residential or industry but of the four locations, Mission Viejo is the least dense and least likely to be influenced by industry or urban

<sup>&</sup>lt;sup>2</sup> U.S. EPA's Guideline on Air Quality Models (GAQM, U.S. EPA 2017) Section 8.3.1.b.

<sup>&</sup>lt;sup>3</sup> Some monitors may not have their 2021 data certified yet so the 3-year period of 2018 through 2020 was used.

development. Therefore, the Mission Viejo monitor was chosen to represent ambient CO background concentrations for the modeling analysis.

There are no active  $SO_2$  monitors at or near coastal locations within the search area. There are currently two active  $SO_2$  monitors in the greater Los Angeles area, one in Long Beach (AQS ID# 06-037-4009) and a second in downtown Los Angeles (AQS ID# 06-037-1103). The Long Beach monitor has only been active since 2021. Therefore, monitor concentrations from the downtown Los Angeles monitor were used for background concentrations in the modeling analysis.

## 2.6.2. PARTICULATE MATTER

Because Los Angeles County, including Catalina Island, is non-attainment for the California  $PM_{10}$ , California  $PM_{2.5}$ , and Federal  $PM_{2.5}$  ambient air quality standards, the project particulate matter modeled impacts will be compared against the significant change in air quality concentration described in Table 4.2 of the draft SEA. This evaluation does not consider background concentrations; therefore, background  $PM_{10}$  and  $PM_{2.5}$  data are not required for this project.

## 2.6.3. NITROGEN DIOXIDE

In the absence of NO<sub>2</sub> ambient monitoring data near the PBGS, the U.S. EPA's Guideline on Air Quality Models (GAQM, U.S. EPA 2017) Section 8.3.2.b, states:

If there are no monitors located in the vicinity of the new or modifying source, a "regional site" may be used to determine background concentrations. A regional site is one that is located away from the area of interest but is impacted by similar or adequately representative sources.

Figure D-7 shows available  $NO_2$  monitors at or near coastal locations within the search area, as follows:

- El Rio in the Ventura County Air Pollution Control District (VCAPCD; AQS ID# 06-111-3001)
- West Los Angeles (AQS ID# 06-037-0113)
- Long Beach Hudson (AQS ID# 06-037-4006; 2018-2019)
- Signal Hill (AQS ID# 06-037-4009; 2020)
- Port of Los Angeles (POLA) ambient air monitoring network3F3F<sup>4</sup>
- Camp Pendleton in the San Diego County Air Pollution Control District (AQS ID# 06-073-1008)

<sup>&</sup>lt;sup>4</sup> Reports of the Air Quality Monitoring Programs at the Ports of Los Angeles and Long Beach, <u>https://monitoring.cleanairactionplan.org/reports/</u>

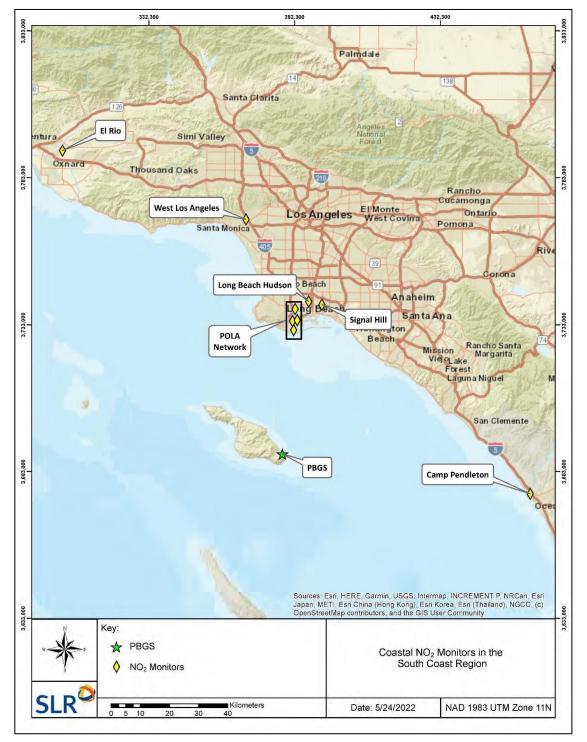


Figure D-7 Coastal NO<sub>2</sub> Monitors in the South Coast Region

The land use and industrial activity around these monitors were reviewed to identify the most suitable background data that is not overly influenced by heavy industrial or urban development.

In the South Coast AQMD, mobile sources (heavy-duty diesel trucks, ships, airplanes, locomotives, and construction equipment) account for more than 80 percent of NO<sub>X</sub> emissions (South Coast AQMD 2022b). Heavy-duty diesel trucks, medium-duty and heavy-duty gas trucks, buses, passenger vehicles and motorcycles, and residential fuel combustion account for about 50 percent of the South Coast AQMD daily NO<sub>X</sub> emissions. These emission sources are concentrated in densely populated areas within the Basin. To illustrate the mobile source activity around the NO<sub>2</sub> monitors listed above and on Catalina Island, population density data, major highways, and airports were overlaid on topographic and census tract maps. Title V facilities and port activity were also overlaid on the maps to denote the locations of major industrial activity.

Figure D-8 shows the population density and Title V facilities on Catalina Island and within the PBGS modeling domain. The map shows that Catalina Island is sparsely populated, with the bulk of the population living in Avalon, has a single small airport far removed from the PBGS area, no highways, and a single major industrial source (the PBGS). Vehicles on Catalina consist primarily of autoettes (golf carts), with very limited numbers of full-size cars and trucks permitted to be on the island. As a result, the air quality on the island and within the PBGS modeling domain is relatively pristine and will continue to be so due to growth restrictions on the island, compared to the densely populated and developed mainland.

As shown in Figure D-9 and Figure D-10, the Long Beach, Signal Hill, POLA, and West Los Angeles monitors are not representative of background NO<sub>2</sub> concentrations for the PBGS modeling domain. These monitors are in densely populated urban areas that are traversed by several major highways, including Interstates 405, 710, and 110, and a dense grid of surface streets that produce large volumes of vehicle traffic. The Long Beach, Signal Hill, and the POLA network are also proximate to many major industrial facilities, including refineries, and the Ports of Los Angeles and Long Beach. These monitors are impacted by NO<sub>X</sub> emissions that are not present on Catalina Island and are not representative of the PBGS modeling domain. Therefore, the West Los Angeles, Long Beach, Signal Hill and, and POLA NO<sub>2</sub> monitors are not suitable for this modeling analysis.

While the Camp Pendleton monitor is located due east of Catalina Island close to the coastline, this monitor may be impacted by Marine Corps Base Camp Pendleton (MCBCP) operations and surrounding City of Oceanside NO<sub>X</sub> emission sources. MCBCP operations surround this monitor in nearly all directions. Aerial imagery of the area around the Camp Pendleton monitor presented in Figure D-11 shows large fleets of military vehicles at locations of MCBCP operations. Emissions from these large vehicles, assault amphibian school activities in the adjacent harbor, and other MCBCP operations very close to the monitor may not be representative of ambient NO<sub>2</sub> concentrations for the PBGS modeling domain. In addition, hours 02:00 and 03:00 are consistently missing in the hourly data for this monitor, leading to relatively low data completeness with an average of 86 percent over the 2018-2020 three-year period. Addressing this in the development of seasonal-diurnal profiles of background concentrations would require filling or interpolation with bracketing available hours. Based on this information, the Camp Pendleton monitor was not considered for use in the modeling analysis.

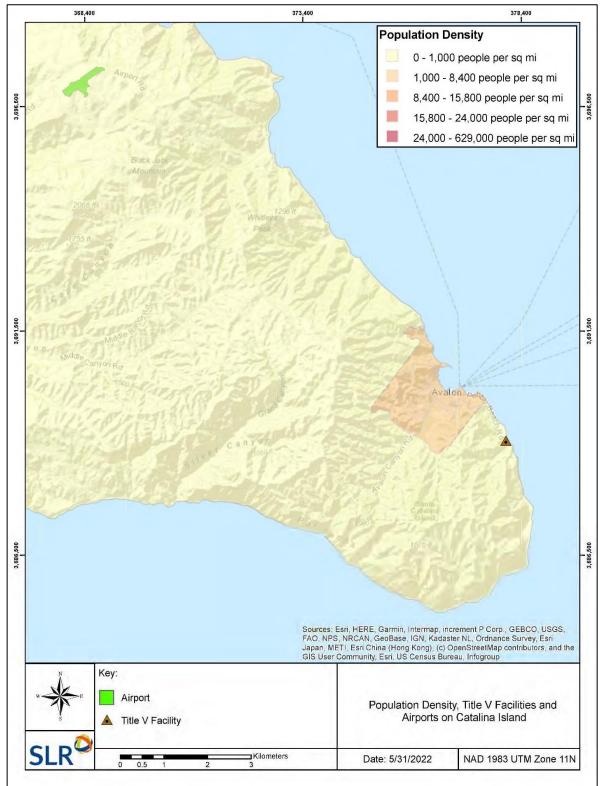


Figure D-8 Catalina Source Environment

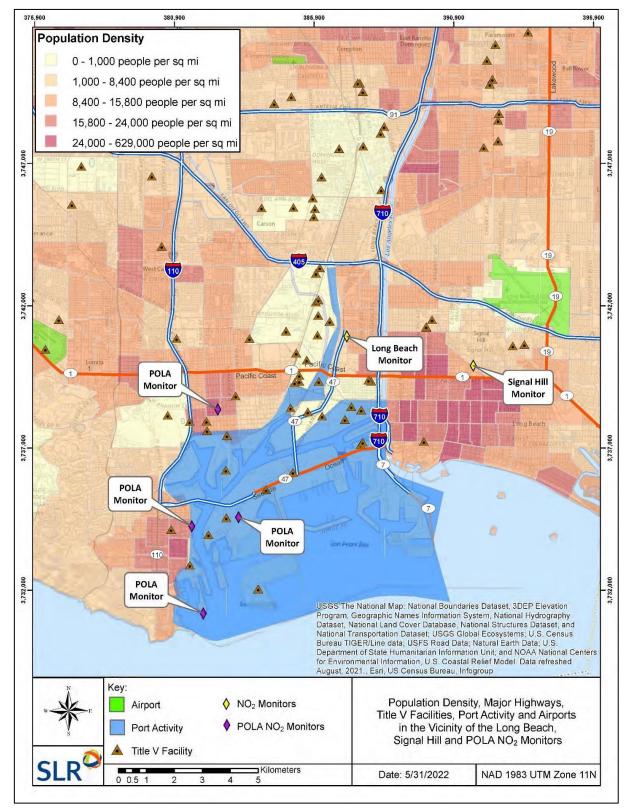


Figure D-9 Long Beach Area Source Environment

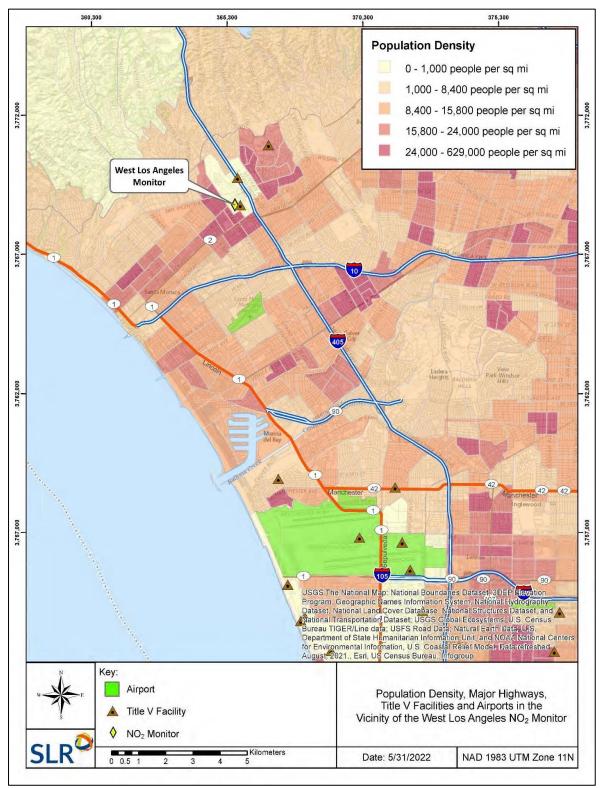


Figure D-10 West Los Angeles Area Source Environment

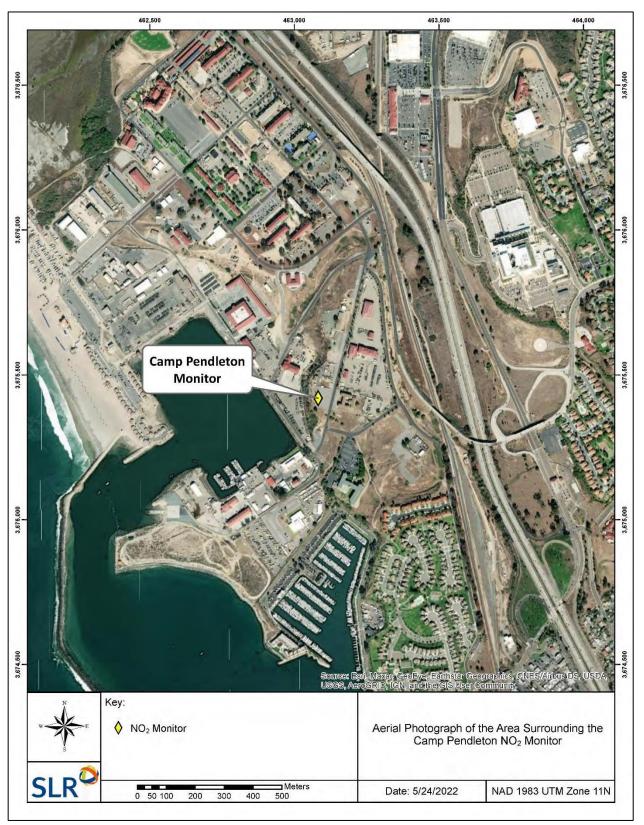


Figure D-11 Camp Pendleton Area Source Environment

Review of the area surrounding the El Rio monitor in Figure D-12 shows that this location is in an area that is less populated, has fewer surface roads and highways, and has less major industrial sources than the monitors in the Los Angeles area described above. The monitor is predominantly downwind of the Oxnard, El Rio, and Ventura urban areas that consist of mainly light to moderately dense residential areas, light industry, State Highway 101, pleasure and commercial harbor operations, and two naval air stations' (NAS) emission sources.

The combined communities of Oxnard, El Rio and Ventura have a population of 322,695 people, are traversed by a major highway and a moderate amount of surface streets and contain eight Title V facilities. By comparison, the population of Avalon is 3,738 people, there are no major highways, and no major industrial sources other than the PBGS on Catalina Island.

Channel Islands and Ventura Harbors, which each contain much higher densities of private and commercial ocean-going vessels than Avalon Harbor, are located approximately 11 km upwind of the El Rio monitor. In addition, the Port of Hueneme<sup>5</sup> (a deep-water commercial port) and Port Hueneme NAS are approximately 13 km upwind of the monitor and Point Mugu NAS is 15 km south of the monitor. While these harbors, and significant commercial and military operations are further away from the El Rio monitor than Avalon Harbor is from the PBGS, the emissions from the Ventura County harbors combined with the previously mentioned urban emission sources, are expected to be much higher than Avalon especially given the presence of a deep-water port and associated infrastructure and the NAS operations.

It is notable that The City of Avalon 2030 General Plan<sup>6</sup>, states that the city regulates vehicles, construction, and industrial operations and such operations are limited within the City and island as a whole. The El Rio monitor is therefore expected to experience much more NO<sub>X</sub> pollution than what is expected in the PBGS modeling domain, including Avalon Harbor, making the El Rio monitor a conservative choice to represent background NO<sub>2</sub> concentrations. The average data completeness for this monitor over the 2018-2020 three-year period is excellent at 95 percent. For these reasons, the El Rio NO<sub>2</sub> data was used as background for this project.

For use with the 1-hour NO<sub>2</sub> modeling, variable background concentrations were developed based on guidance provided in the U.S. EPA memorandum *Additional Clarification Regarding the Application of Appendix W Modeling Guidance for the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard* (U.S. EPA 2011). The guidance states that it is appropriate to use the multiyear averages of the 98<sup>th</sup>-percentile of the available background concentrations varied by season and hour-of-day when incorporating ambient background concentrations in a modeling assessment of the 1-hour NO<sub>2</sub> NAAQS. The guidance recommends that the 98<sup>th</sup>-percentile background concentrations should be based on the 3<sup>rd</sup> highest value for each season and hour-of-day combination.

<sup>&</sup>lt;sup>5</sup> The Port of Hueneme. <u>https://www.portofhueneme.org</u>

<sup>&</sup>lt;sup>6</sup> The City of Avalon General Plan. <u>https://www.hcd.ca.gov/housing-elements/docs/avalon\_5th\_draft111413.pdf</u>

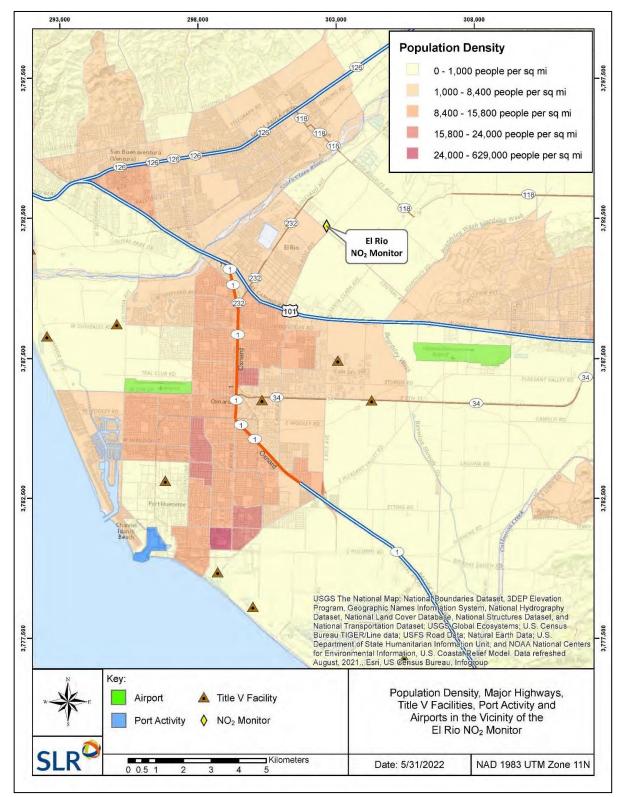


Figure D-12 El Rio Area Source Environment

Hourly monitor concentrations were downloaded from the U.S. EPA Air Data website $6F6F^7$  for the El Rio monitor. The third highest concentration for each season and hour-of-day combination for each year was calculated and then averaged over the three-year monitoring period for use in the 1-hour NO<sub>2</sub> NAAQS compliance demonstration. The resulting 96 seasonal-diurnal monitor concentrations were input to the AERMOD model using the BACKGRND and SEASHR keywords in the source pathway. The average high-third-high seasonal-diurnal concentrations are provided in Table D-6.

For the CAAQS compliance demonstration, the 1-hour NO<sub>2</sub> standard is not to be exceeded, that is, compliance is demonstrated using the maximum 1-hour concentration rather than the 98<sup>th</sup>-percentile of the 1-hour daily maximum concentrations used for the NAAQS. Therefore, a second set of seasonal- diurnal background concentrations was developed using the maximum concentration for use with the 1-hour NO<sub>2</sub> CAAQS analysis. Table D-7 presents the maximum seasonal-diurnal concentrations.

### 2.7. OZONE LIMITING METHOD FOR MODELING NO<sub>2</sub> IMPACTS

Some forms of emitted  $NO_X$  [i.e., nitrogen oxide (NO)] will react with other atmospheric constituents (ozone) to form  $NO_2$ . These reactions are complex and depend on factors such as mixing of ambient air into the plume, individual reaction rates, and the concentration of specific reactants in the atmosphere. Regulatory dispersion models such as AERMOD are designed to model impacts of non-reactive pollutants, but there are various modeling techniques that can be used to estimate ambient  $NO_2$  impacts using these models.

U.S. EPA (2017) presents a three-tiered approach that may be applied to modeling NO<sub>2</sub> impacts. The three tiers are:

- Tier 1: assume full conversion of NO to NO<sub>2</sub>. In other words, assume that all NO<sub>X</sub> is emitted as NO<sub>2</sub>.
- Tier 2: multiply the Tier 1 result by the Ambient Ratio Method 2 (ARM2), which provides estimates of representative equilibrium ratios of NO<sub>2</sub>/NO<sub>X</sub> value based ambient levels of NO<sub>2</sub> and NO<sub>X</sub> derived from national data from U.S. EPA's Air Quality System (AQS).
- Tier 3: the ozone limiting method (OLM) or plume volume molar ratio method (PVMRM) as a detailed screening technique.

The Tier 1 and Tier 2 approaches are often too conservative for all but the smallest  $NO_X$  sources when comparing impacts to the ambient  $NO_2$  standards. SLR therefore used the Tier 3 OLM method for this analysis in accordance with U.S. EPA guidance (2017, 2022) and associated guidance related to modeling  $NO_2$  concentrations, including the use of the OLMGROUP ALL keyword.

Application of OLM requires the in-stack  $NO_2/NO_X$  ratio (ISR) for the modeled permit units as well as hourly ozone data. Discussion of these inputs is provided in the following section.

<sup>&</sup>lt;sup>7</sup> <u>https://aqs.epa.gov/aqsweb/airdata/download\_files.html#Raw.</u>

High	-3rd-H	ligh Se	easonal	-Diurn	al NO <sub>2</sub>	Ambie	nt Bacl	kgroun	d Conc	entrati	ons	
Hour of Day	1	2	3	4	5	6	7	8	9	10	11	12
Winter	25.08	31.35	29.47	30.72	33.23	36.99	43.89	41.38	33.86	27.59	25.71	23.83
Spring	16.93	16.93	13.17	15.05	20.06	32.60	33.23	25.71	21.32	16.93	15.05	13.79
Summer	20.69	21.95	16.93	17.56	20.69	25.08	25.71	20.69	21.32	17.56	15.05	11.29
Autumn	25.08	26.33	20.69	24.45	26.33	35.74	39.50	38.87	31.98	26.96	24.45	23.20
Hour of Day	13	14	15	16	17	18	19	20	21	22	23	24
Winter	23.20	22.57	28.84	25.71	30.72	43.26	42.01	38.25	34.49	33.86	28.84	25.08
Spring	13.17	11.29	10.03	10.03	9.41	11.29	16.30	18.18	18.81	17.56	19.44	15.68
Summer	8.78	7.52	7.52	7.52	8.78	10.03	11.91	14.42	16.93	21.32	20.69	20.69
Autumn	20.06	14.42	15.05	15.68	21.32	34.49	37.62	31.35	29.47	28.84	27.59	25.08

 Table D-6

 High-3rd-High Seasonal-Diurnal NO2 Ambient Background Concentrations

Table D-7Maximum Seasonal-Diurnal NO2 Ambient Background Concentrations

							0					
Hour of Day	1	2	3	4	5	6	7	8	9	10	11	12
Winter	33.23	40.76	40.76	45.77	50.16	47.65	51.41	44.52	36.99	32.60	32.60	38.25
Spring	21.32	21.32	16.93	17.56	25.08	42.01	41.38	33.86	30.72	27.59	20.06	19.44
Summer	34.49	47.65	40.13	25.71	26.96	51.41	30.10	25.08	25.71	20.69	16.30	13.79
Autumn	34.49	34.49	24.45	26.96	28.22	42.64	47.65	47.65	42.01	40.13	28.84	31.35
Hour of Day	13	14	15	16	17	18	19	20	21	22	23	24
Winter	34.49	33.86	36.99	36.37	42.01	54.55	57.06	46.40	38.87	42.64	35.11	33.23
Spring	18.18	17.56	16.30	15.05	13.17	15.68	28.22	23.83	21.95	21.95	24.45	20.06
Summer	10.66	8.78	8.78	9.41	11.91	13.17	15.05	17.56	20.06	25.71	46.40	33.23
Autumn	30.72	35.74	30.10	22.57	28.84	46.40	47.65	49.53	38.87	31.98	32.60	35.74

### 2.7.1. OZONE LIMITING METHOD FOR MODELING NO2 IMPACTS

U.S. EPA guidance (2011, 2014) provides for a default ISR of 0.5 when no source-specific data or data for similar sources are available. South Coast AQMD AERMOD modeling guidance7F7F<sup>8</sup> allows for non-default ISR values if manufacturer data is available. Cummins provided SCE with ISR data for the proposed engines based on load; this data is shown in Table D-8.

The engines will operate most frequently between the highest two loads. including during periods of startup and shutdown. An average ISR of 0.08 between these two loads was used in the 1-hour and annual  $NO_2$  modeling analyses. Supporting documentation from Cummins is provided in Appendix A.

Kilowatt (kW)	ISR
1,726	0.05
1,298	0.11
870	0.10
433	0.07
176	0.06

Table D-8Engine In-Stack NO2/NOx Ratios

### 2.7.2. HOURLY OZONE DATA

Consistent with the rationale for selection of the background  $NO_2$  monitor discussed in Section 2.8.3, ozone data from the El Rio monitor was used in the OLM processing. Three years (2018-2020) of hourly ozone concentrations were downloaded from the U.S. EPA Air Data website8F8F.<sup>9</sup> From these data, the average ozone concentration for each hour of each year was calculated. If an hour did not have any valid observations over the three-year monitoring period, the concentration for the missing hour were interpolated using the average of the previous and following hours. Hours with concentrations of zero parts per billion were not used in the development of the hourly profiles. This was done to avoid underestimating ozone concentrations that may be the result of titration in the presence of elevated  $NO_X$  concentrations in the relatively urban area around the El Rio monitor. Such titration is not expected to occur within the PBGS modeling domain.

Once all hours of the year are assigned a concentration, the data was tabulated in a text file by month, day, and hour, and assigned the year 2018 to match the prognostic meteorological data timestamps. The data was input to AERMOD as an include file using the OZONEFIL keyword in the control pathway. To address South Coast AQMD's concern that nocturnal ozone concentrations collected at the El Rio monitor may be artificially low due to NO<sub>X</sub> titration, the

<sup>&</sup>lt;sup>8</sup> <u>http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance</u>

<sup>&</sup>lt;sup>9</sup> https://aqs.epa.gov/aqsweb/airdata/download\_files.html

NOMINO3 keyword in AERMOD will not be invoked, effectively providing a minimum ozone concentration of 40 parts per billion (ppb) during nighttime stable conditions.

The data file containing the hourly ozone concentrations was previously provided to South Coast AQMD via e-mail for review and is provided with this modeling report.

### 3. HEALTH RISK ASSESSMENT METHODS

Risks were assessed using the dispersion modeling and DPM emissions described in Section 2, and the California Air Resources Board (CARB) Hot Spots Analysis and Reporting Program (HARP) Air Dispersion Modeling and Risk Assessment Tool (ADMRT, Version 22118). The ADMRT incorporates the current OEHHA risk assessment guidelines (OEHHA 2015), as supplemented by the CARB and CAPCOA Risk Management Guidance for Stationary Sources of Air Toxics (RMP, Risk Management Policy). The methods used to estimate cancer and non-cancer risks are described in the following subsections.

### 3.1. CANCER RISK AND CANCER BURDEN METHODS

### 3.1.1. RESIDENTIAL CANCER RISKS

Residential cancer risks were calculated in the ADMRT using the RMP (Derived) Method<sup>10</sup> risk analysis option over a 30-year exposure duration. The fraction of time at home for age bins less than 16 years was not invoked for the inhalation pathway because there are schools in the greater Avalon area that could experience a cancer risk of 1 per million or greater due to PBGS emissions.

### 3.1.2. COMMERCIAL CANCER RISKS

Commercial cancer risks were calculated in the ADMRT using the OEHHA Derived Method risk analysis option over a 25-year exposure duration. The PBGS operates 24 hours per day and 7 days per week; therefore, the Worker Adjustment Factor was not used for commercial cancer risk calculations.

### 3.1.3. CANCER BURDEN

Population cancer burden is the population weighted number of excess cancer cases based on the population of residential and off-site worker individuals within the zone of impact (ZOI). The cancer risk ZOI is assumed to encompass the most densely populated portions of Catalina Island, which are concentrated in the City of Avalon. As such, the population of the City of Avalon was used to calculate the cancer burden. The calculation is consistent with the approved 2019 HRA (SLR 2019).

### **3.1.4. NON-CANCER RISK METHODS**

Residential and commercial chronic non-cancer risks were calculated in the ADMRT using the OEHHA Derived Method risk analysis option9F9F<sup>10</sup>. Evaluation of acute risks are not required for DPM (OEHHA 2015).

### 4. MODELING ANALYSES AND RESULTS

Table D-9 shows the AQIA results from the full-time (i.e., 24 hours and 365 days per year) operation of all three new Tier 4 Final diesel engines together. According to this table, the 24-hr average ambient PM10 and PM2.5 concentrations due to operation of the three Tier 4 Final diesel engines would exceed the ambient air quality standards.

<sup>&</sup>lt;sup>10</sup> While DPM is not a multi-pathway carcinogen, SLR will use the South Coast AQMD mandatory pathways described in Appendix II of South Coast AQMD (2017) and the required settings for the non-inhalation pathways. There were no cancer risks associated with the non-inhalation pathways.

Standard	Allowed limit, µg/m <sup>3</sup>	Background, µg/m³	Modeled level, µg/m³	Total level (AQMD), μg/m <sup>3</sup>	Exceeds threshold?
NO2 CAAQS <sup>b</sup> , 1 hr (max)	339	57.1°	193.5	250.6	No
NO2 CAAQS <sup>b</sup> (NAAQS), annual	57 (100)	9.4	16.0	25.4	No
PM2.5 24hr NAAQS, PM10 24 hr CAAQS <sup>d</sup>	2.5		3.3	3.4°	Yes
PM10 24hr NAAQS	150	58 <sup>f</sup>	3.3	61.4 <sup>e</sup>	No
PM10 annual CAAQS <sup>d</sup>	1		0.36	0.36 <sup>e</sup>	No
CO CAAQS (NAAQS), 1 hr	23,000 (40,000)	1,145	862	2,007	No
CO CAAQS (NAAQS), 8 hr	10,000 (10,000)	916	436	1,352	No
SO2 CAAQS, 1 hr (max)	655	7.9	4.0	11.9	No
SO2 NAAQS, 1 hr (99 <sup>th</sup> percentile)	196	7.9	3.0	10.9	No
SO2 CAAQS, 24 hr	105	2.5	1.5	4.0	No

 
 Table D-9

 Facility Impacts for NAAQS and CAAQS Compliance (Existing engine contributions are not subtracted)<sup>a</sup>

<sup>a</sup> CEQA modeling considers cumulative impacts of all new engines and background.

<sup>b</sup> Impacts from new engines were scaled up by 3% to account for a more conservative in-stack ratio of 11%.

<sup>c</sup> Even though time- varying NO2 backgrounds are included in the model results, the maximum background was added to the scaled up NO2 concentrations.

<sup>d</sup> Due to nonattainment designations for PM2.5 and PM10, only the Significant Change in Concentration (no background) is used to compare against.

<sup>e</sup> Added the MERPs-estimated daily and annual average secondary PM2.5 of 0.1 and 0.003 μg/m<sup>3</sup>, respectively

<sup>f</sup> Staff used the 4<sup>th</sup> highest PM10 daily average from the South Long Beach monitor, measured between 2019-2021. This was used instead of the El-Rio monitor in Ventura County, since LA County now attains the PM10 NAAQS.

Table D-10 summarizes the results of the health risk evaluation of the full-time (i.e., 24 hours and 365 days per year) operational emissions from each three new Tier 4 Final diesel engines for all receptor types, i.e., the point of maximum impact (PMI), the maximally exposed individual workplace (MEIW), and the maximum sensitive receptors.

Unit	<b>Receptor Type</b>	Cancer Risk (one in a million)	Chronic Hazard Index (HI)	
	PMI	6.89	0.002	
New Tier 4 Final Diesel	MEIW	2.27	0.007	
Engine (1)	Maximum Sensitive Receptor	0.27	0.009	
	PMI	7.88	0.002	
New Tier 4 Tier 4 Final Diesel	MEIW	2.42	0.007	
Engine (2)	Maximum Sensitive Receptor	0.27	0.009	
	PMI	7.26	0.002	
New Tier 4 Final Diesel	MEIW	2.53	0.006	
Engine (3)	Maximum Sensitive Receptor	0.28	0.009	

 Table D-10

 Operational Health Risk Assessment from Three New Tier 4 Final Diesel Engines

### 5. REFERENCES

- California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015.
- SLR International Corporation (SLR). 2019. AB2588 Revised Health Risk Assessment for the Pebbly Beach Generating Station (South Coast AQMD ID: 4477). November 2019.
- South Coast AQMD. 2022a. South Coast AQMD Modeling Guidance for AERMOD. Available at <u>http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance.</u>
- South Coast AQMD. 2017. Risk Assessment Procedures for Rules 1401, 1401.1 and 212, Version 8.1. September 1, 2017.
- U.S. EPA. 2022. User's Guide for the AMS/EPA Regulatory Model AERMOD (EPA-454/B-22-007). Office of Air Quality Planning and Standards. June 2022.
- U.S. EPA. 2019. Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM<sub>2.5</sub> under the PSD Permitting Program. Memorandum from Richard A. Weyland (Air Quality Assessment Division). April 30, 2019.
- U.S. EPA. 2017. Guideline on Air Quality Models. Published as 40 CFR Part 58 Appendix W. January 17, 2017.
- U.S. EPA. 2014. Clarification on the Use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO<sub>2</sub> National Ambient Air Quality Standard. Memorandum from R. Chris Owen and Roger Brode. September 30, 2014.
- U.S. EPA. 2011. Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO<sub>2</sub>, National Ambient Air Quality Standard. Memorandum from Tyler Fox (Leader, Air Quality Modeling Group). March 1, 2011.

**APPENDIX E** 

**Comment Letters Received on the Draft SEA and Responses to Comments** 

### APPENDIX E: COMMENT LETTERS RECEIVED ON THE DRAFT SEA AND RESPONSES TO COMMENTS

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# **OVERVIEW**

This appendix to the Final SEA has been prepared in accordance with the California Environmental Quality Act (CEQA) and the South Coast Air Quality Management District's (South Coast AQMD) Certified Regulatory Program Guidelines. Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l), and South Coast AQMD's Certified Regulatory Program (codified under Rule 110) require that the final action on PAR 1135 include written responses to issues raised during the public process. South Coast AQMD Rule 110 (the rule which codifies and implements the South Coast AQMD's certified regulatory program) does not impose any greater requirements for summarizing and responding to comments than is required for an environmental impact report under CEQA.

# **CEQA PROCESS OF THE DRAFT EA**

The Draft SEA was released for a 46-day public review and comment period that started on August 2, 2024 and ended on September 17, 2024 at 5:00 p.m. A Notice of Completion (NOC) and the Draft SEA were filed with the Governor's Office of Planning and Research (OPR) (State Clearinghouse (SCH) # 2016071006) and posted on the State Clearinghouse's CEQAnet Web Portal at: https://ceqanet.opr.ca.gov/2016071006/10. In addition, the NOC was filed and posted with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties. The NOC was distributed using electronic mail to various government agencies and other interested agencies, organizations, and individuals (collectively referred to as the public). The NOC was also provided to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the Draft SEA. Additionally, the NOC was published in the Los Angeles Times on August 2, 2024. The NOC and the Draft SEA South Coast AOMD's were posted on website at: http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects. An email announcing the availability of the NOC and the Draft EA was also sent to interested parties on August 2, 2024.

# LIST OF COMMENTERS

Two comment letters were received by South Coast AQMD during the Draft SEA public review and comment period. This appendix contains responses to comments received in relation to the analysis in the Draft SEA. Responses to comments received in relation to the proposed amended rule language (PAR 1135) can be found in Appendix A of the Final Staff Report.

For the purposes of identifying and responding to comments on the Draft SEA, the comment letters have been organized according to the date received and assigned a number; individual comments within each letter have been bracketed and assigned a comment number. The following is a list of comment letters received in relation to the Draft SEA along with the date each letter was received.

Comment Letter Number	Commenter	Comment Letter Received Date	Page No.
Comment Le	etters Received During the Public Review Period		
1	Agua Caliente Band of Cahuilla Indians	September 17, 2024	E-4
2	Department of Transportation, District 7 – Office of Regional Planning	September 17, 2024	E-6

For any response in this appendix that requires an update elsewhere in this SEA, the response will indicate that a change has been made and where the change is located in the Final SEA. Additions to text are reflected in underlined text and deletions are reflected in strikethrough text.

Pursuant to CEQA Guidelines Section 15088(a) and South Coast AQMD Rule 110(d), South Coast AQMD is required to evaluate and provide written responses to only the comments received during the public comment period of the SEA which raise significant environmental issues. South Coast AQMD staff has reviewed the comments submitted, updated the SEA to reflect the responses to the comments, and determined that none of the comments raise significant environmental issues and none of the revisions to the SEA contain the type of significant new information that requires recirculation of the Draft SEA for further public comment under CEQA Guidelines Sections 15073.5 and 15088.5. Further, none of the comments indicate that the proposed project will result in a significant new environmental impact not previously disclosed in the Draft SEA. Additionally, none of comments indicate that there would be a substantial increase in the severity of a previously identified environmental impact that will not be mitigated, or that there would be any of the other circumstances requiring recirculation as described in CEQA Guidelines Sections 15073.5 and 15088.5.

### **CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES**

CEQA Guidelines Section 15204(b) outlines parameters for submitting comments and reminds persons and public agencies that the focus of review and comment of the Draft SEA should be "on the proposed finding that the project will not have a significant effect on the environment." If persons and public agencies believe that the proposed project may have a significant effect, the commenter should: 1) identify the specific effect; 2) explain why they believe the effect would occur; and 3) explain why they believe the effect would be significant. Comments are most helpful when they are as specific as possible. At the same time, reviewers of the Draft SEA should be aware that CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. CEQA Guidelines Section 15204(c) further advises, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence." CEQA Guidelines Section 15204(e) also states, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section."

Pursuant to CEQA Guidelines Section 15088(a) and South Coast AQMD Rule 110(d), South Coast AQMD has evaluated and provided written responses to comments received during the Draft SEA public comment period. The level of detail contained in each response corresponds to the level of

detail provided in the comment (i.e., responses to general comments may be general). In addition, updates to the CEQA analysis have been made due to public comments as well as minor modifications for consistency.

#### COMMENT LETTER #1 – Tribal Historic Preservation Office, AGUA CALIENTE BAND OF CAHUILLA INDIANS, September 17, 2024

# AGUA CALIENTE BAND OF CAHUILLA INDIANS

TRIBAL HISTORIC PRESERVATION

September 17, 2024



03-010-2024-002

1-1

[VIA EMAIL TO:staghvaee@aqmd.gov] South Coast Air Quality Management District Sina Taghvaee 21865 Copley Drive Diamond Bar, CA Y91765

# Re: Notice of Completion of a Draft Subsequent Environmental Assessment and Opportunity for Public Comment

Dear Sina Taghvaee,

The Agua Caliente Band of Cahuilla Indians (ACBCI) appreciates your efforts to include the Tribal Historic Preservation Office (THPO) in the Amended Rule 1135 project. A records check of the ACBCI cultural registry revealed that the project area is not located within the Tribe's Traditional Use Area. Therefore we defer to other tribes in the area. This letter shall conclude our consultation efforts.

\* Santa Catalina Island is not part of Cahuilla traditional use area. If the project consists of facilities in Coachella Valley or Riverside County in general, San Bernardino County, Imperial County, please inform us.

Again, the Agua Caliente appreciates your interest in our cultural heritage. If you have questions or require additional information, please call me at (760) 883-1137. You may also email me at ACBCI-THPO@aguacaliente.net.

Cordially,

the heres-

Luz Salazar Cultural Resources Analyst Tribal Historic Preservation Office AGUA CALIENTE BAND OF CAHUILLA INDIANS

### RESPONSE TO COMMENT LETTER #1 – Tribal Historic Preservation Office, AGUA CALIENTE BAND OF CAHUILLA INDIANS, September 17, 2024

### **Response 1-1**

Comment 1-1 includes Agua Caliente Band of Cahuilla Indians (ACBCI) appreciation of South Coast AQMD's effort to include the Tribal Historic Preservation Office (THPO) in the proposed amendments to Rule 1135, and concluded that the project area is not located within the Tribes traditional use area, according to a record check of the ACBCI cultural registry.

The South Coast AQMD provided a formal notice of the proposed project to all California Native American Tribes that either requested to be on the Native American Heritage Commission's (NAHC) notification list or South Coast AQMD's mailing list per Public Resources Code Section 21080.3.1(b)(1) and a notice of the proposed project was provided to the commenter. These notices provide an opportunity for California Native American Tribes to request a consultation with the South Coast AQMD if potentially significant adverse impacts to Tribal cultural resources are identified. The Final SEA for the proposed project did not identify any potentially significant adverse impacts to Tribal cultural resources and the commenter's consultation efforts also confirmed that that the project area is not part of Cahuilla traditional use area. Since this comment does not raise any issues relative to Tribal cultural resources during the comment period for the Draft SEA, no further response is necessary under CEQA.

#### COMMENT LETTER #2 – Department of Transportation, District 7 – Office of Regional Planning, September 17, 2024 (p. 1 of 2)

STATE OF CALIFORNIA-CALIFORNIA STATE TRANSPORTATION AGENCY

DEPARTMENT OF TRANSPORTATION DISTRICT 7 100 S. MAIN STREET, MS 16 LOS ANGELES, CA 90012 PHONE (213) 897-0673 FAX (213) 897-1337 TTY 711 www.dot.ca.gov



September 17, 2024

Sina Taghvaee, Air Quality Specialist South Coast AQMD 21865 Copley Dr Diamond Bar, CA 91765

> RE: Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities – Subsequent EIR (SBE) SCH #2016071006 GTS #07-MULTIPLE-2018-00407 LA Vic. Multiple

Dear Sina Taghvaee,

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. By statute, the South Coast Air Quality Management District (AQMD) is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the areas under the jurisdiction of the South Coast AQMD. The AQMP is a regional blueprint for how the South Coast AQMD will achieve air quality standards and healthful air, and it contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases (GHGs), and toxic air contaminants (TACs). Proposed Amended Rule (PAR) 1135 applies to electric generating units at electricity generating facilities that are investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 MW of electrical power for distribution in the state or local electrical grid system.

The November 2018 Final Mitigated SEA for Rule 1135 previously analyzed the construction and operational transportation and traffic impacts at six affected facilities to comply with the proposed emission limits. The assessment concluded less than significant transportation and traffic impacts relative to: 1) the peak daily work force that would be needed during construction and their associated trips; 2) peak daily number of heavyduty truck trips during construction; and 3) peak daily number of heavy-duty truck

2-1

<sup>&</sup>quot;Provide a safe and reliable transportation network that serves all people and respects the environment"

#### COMMENT LETTER #2 – Department of Transportation, District 7 – Office of Regional Planning, September 17, 2024 (p. 2 of 2)

Sina Taghvaee September 17, 2024 Page 2

trips during operation. While implementing the proposed project might result in incremental increases in the number of trips that may occur during construction and operation, the increases do not exceed the significance criteria of 350 round trips per day for transportation and traffic.

After reviewing the SBE, Caltrans has the following comments:

Construction of the proposed project would temporarily increase the transport of hazardous materials in the project area due to the storage and use of aqueous ammonia. Before construction begins, Caltrans recommends that the construction contractor develop a project-specific contingency plan to reduce the potential for spills during transportation of hazardous materials. The following measures are recommended for implementation:

- All project equipment will be subject to leak inspections before being brought onsite and regularly during construction.
- All vehicles will be inspected for leaks and other potential safety hazards before transporting hazardous materials.
- All hazardous materials will be clearly marked with the appropriate signage or labels, securely contained, and properly identified, including the duration of transportation.

Any transportation of heavy construction equipment and/or materials that requires the use of oversized transport vehicles on State Highways will require a Caltrans transportation permit. Caltrans recommends limiting construction traffic to off-peak periods to minimize the potential impact on State facilities. If construction traffic is expected to cause issues on any State facilities, please submit a construction traffic control plan detailing these issues for Caltrans' review. We look forward to the coordination of our efforts to ensure potential impacts to the highway facilities and traveling public are discussed and addressed before work begins.

If you have any questions, please contact project coordinator Frances Duong, at frances.duong@dot.ca.gov and refer to GTS #07-MULTIPLE-2018-00407.

Sincerely,

Anthony Higgins Anthony Higgins Acting LDR/CEQA Branch Chief

Cc: State Clearinghouse

"Provide a safe and reliable transportation network that serves all people and respects the environment"

concluded

2 - 1

### RESPONSE TO COMMENT LETTER #2 – Department of Transportation, District 7 – Office of Regional Planning, September 17, 2024

### **Response 2-1**

Comment 2-1 contains introductory remarks and a brief summary of the proposed project without raising any issues relative to the environmental analysis in the Draft SEA. Therefore, no response is required by CEQA. [CEQA Guidelines Section 15088(a)].

### Response 2-2

Comment 2-2 claims that there will be an increase in the use of ammonia and provides recommended implementation measures to minimize the spills of hazardous materials during transportation. However, the analysis in the Draft SEA as shown in the following screenshot (from p. 4-46 of the Draft SEA) indicates that there will be no increase in ammonia use:

Facility 2 currently receives deliveries of urea, and stores and converts it to aqueous ammonia on-site as part of existing operations for their SCR system. The amount of urea that may be needed by Facility 2 as a result of PAR 1135 is not expected to increase, and the current quantity of urea and frequency of deliveries to Facility 2 should be sufficient. Thus, there will be no increase in the number of peak daily truck trips and no new significant transportation impacts associated with deliveries of urea to Facility 2 will be expected to occur. In addition, when compared to what was previously analyzed in the November 2018 Final Mitigated SEA for Facility 2, the amount of urea delivery, storage, and use would remain the same or decrease as a result of the proposed changes by PAR 1135 since three new Tier 4 Final diesel combustion engines along with NZE and ZE technologies would operate to achieve 6 tpy NOx emission limit instead of the previously analyzed five new Tier 4 Final diesel engines in the November 2018 Final Mitigated SEA for Rule 1135.

Therefore, the recommended implementation measures are not applicable to the proposed project and will not be included in the Final SEA.

### **Response 2-3**

Comment 2-3 notes that a Caltrans transportation permit is required in the event that oversized transport vehicles traveling on state highways are needed to deliver construction equipment and materials to the affected facilities. It is important to note that the anticipated construction as part of implementation of PAR 1135 will occur on Santa Catalina Island, where there are no state highways. In addition, the construction equipment needed to implement PAR 1135 will be transported from the mainland to Santa Catalina Island by barge. However, the method of transporting the construction equipment on the mainland on the way to/from the port where the barge is loaded/off-loaded could occur via state highways. Thus, while PAR 1135 does not contain any requirements that would interfere with traffic patterns and Caltrans permit requirements, the transportation analysis in the Final SEA has been updated to mention this requirement (p. 4-52 of the Final SEA), as follows:

Thus, while implementing the proposed project might result in incremental increases in the number of trips that may occur during construction and operation, the increases do not exceed the significance criteria of 350 round trips per day for transportation and traffic. In addition, the California Department of Transportation (Caltrans) recommends the implementation of a traffic control plan to minimize disruptions to traffic and ensure adequate emergency access in the event of traffic lane closure during construction (i.e., incorporating channelizing devices preceded by approved warning signs). Moreover, a Caltrans transportation permit is required in the event that oversized transport vehicles traveling on state highways are needed to deliver construction equipment and materials. Regardless of whether a Caltrans transportation permit is required is required, Caltrans recommends that large size truck trips be limited to off-peak commute periods.

While PAR 1135 does not contain any requirements that would interfere with traffic patterns and Caltrans permit requirements, it is important to note that construction activities are anticipated as part of implementation of PAR 1135 except that the construction will occur on Santa Catalina Island, where there are no state highways. In addition, the construction equipment needed to implement PAR 1135 will be transported from the mainland to Santa Catalina Island by barge. However, because the method of transporting the construction equipment on the mainland on the way to/from the port where the barge is loaded/off-loaded could occur via state highways, the aforementioned Caltrans requirements would apply. Therefore, the previous conclusion of less than significant impacts to transportation and traffic impacts during construction and operation in the November 2018 Final Mitigated SEA for Rule 1135 will continue to apply to the proposed project.

### SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

### Final Socioeconomic Impact Assessment For Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities

### October 2024

#### **Deputy Executive Officer**

Planning, Rule Development, and Implementation Sarah L. Rees, Ph.D.

#### Assistant Deputy Executive Officer

Planning, Rule Development, and Implementation Michael Krause

#### **Planning and Rules Manager**

Planning, Rule Development, and Implementation Barbara Radlein

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#### SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT GOVERNING BOARD

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VANESSA DELGADO Senator (Ret.) Senate Rules Committee Appointee

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V. MANUEL PEREZ Supervisor, Fourth District County of Riverside

NITHYA RAMAN Councilmember, Fourth District City of Los Angeles Representative

CARLOS RODRIGUEZ Councilmember, Yorba Linda Cities of Orange County

JOSÉ LUIS SOLACHE Mayor, Lynwood Cities of Los Angeles County/Western Region

DONALD P. WAGNER Supervisor, Third District County of Orange

**EXECUTIVE OFFICER:** 

WAYNE NASTRI

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# **EXECUTIVE SUMMARY**

On March 17, 1989, the South Coast Air Quality Management District (South Coast AQMD) Governing Board adopted a resolution which requires an analysis of the economic impacts associated with adopting and amending rules and regulations. In addition, Health and Safety Code Section 40440.8 requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which "will significantly affect air quality or emissions limitations." Lastly, Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes Best Available Retrofit Control Technology (BARCT) or "all feasible measures" requirements relating to emissions of ozone, carbon monoxide (CO), sulfur oxides (SOx), nitrogen oxides (NOx), volatile organic compounds (VOC), and their precursors.

Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, establishes oxides of nitrogen (NOx) mass emission limits to reflect the Best Available Retrofit Control Technology (BARCT), requirements to install zero-emission (ZE) or near zero-emission (NZE) electricity generating equipment, and requirements to remove from service existing prime power diesel-internal-combustion engines for electricity generating units located on Santa Catalina Island. In addition, PAR 1135 establishes provisions for monitoring, reporting and recordkeeping for NZE electricity generating units and units not required to install continuous emissions monitoring systems (CEMS) located on Santa Catalina Island. PAR 1135 also includes updates to remove outdated rule provisions and correct rule references, and other editorial changes. Upon full implementation, PAR 1135 is expected to reduce NOx emissions by 65.3 tons per year (tpy).

A socioeconomic impact assessment has been conducted to assess the socioeconomic impacts from implementing PAR 1135 and the following presents a summary of the analysis and findings.

Key Elements of PAR 1135	PAR 1135 establishes NOx emission limits to reflect the BARCT, requirements to install ZE/NZE equipment, and requirements to remove
1100	from service existing prime diesel internal-combustion engines for electricity generating units located on Santa Catalina Island.

- Affected Facilities and Industries The implementation of PAR 1135 will affect only one electricity generating facility located on Santa Catalina Island, which currently operates six diesel internal combustion engines and 23 microturbines to generate power. The facility is classified under the industry of Fossil Fuel Electric Power Generation per North American Industry Classification System (NAICS) with a NAICS code 221112. The affected facility does not qualify as a small business, based on various definitions of small businesses.
- Assumptions for the Analysis PAR 1135 contains a final NOx emission limit (annual cap) of six tpy for the affected facility located on Santa Catalina Island. To achieve the final NOx emission limit, the affected facility may purchase and install solar photovoltaic cells (ZE equipment), propane-fueled linear generators and fuel cells (NZE equipment), and replace three existing diesel internal combustion engines (identified in Table 1 as Diesel Engine Units 8, 10 and

15) and all 23 microturbines with three Tier 4 Final diesel engines.

Because the age of the equipment to be replaced ranges from 29 to 60 years old, the analysis assumed that the three replaced diesel internal combustion engines and 23 microturbines would have no resale value and thus, their replacement would not result in stranded assets.

PAR 1135 would result in the replacement of the existing diesel internal combustion engines and microturbines with Tier 4 Final diesel engines no earlier than the year 2027, but no later than 2035. In addition, in order to achieve the final NOx limit, a combination of ZE technology such as solar technology and NZE equipment such as propane-fueled linear generators and fuel cells would need to be deployed between 2029 and 2035. All equipment is assumed in this analysis to have a useful life of 25 years.

**Compliance Costs** The analysis of compliance costs covers the period from 2027 to2059. The implementation of PAR 1135 is projected to result in an overall cost savings attributable to the recurring costs from maintenance and parts, employee and service costs, and fuel costs. The average annual cost savings due to the implementation of PAR 1135 are estimated to range from \$14.99 million to \$14.16 million from 2027 to 2059, depending on real interest rates assumed (1% to 4%).

The following table presents a summary of the average annual costs or savings of PAR 1135 implementation by cost categories. While the implementation of PAR 1135 will result in annual compliance costs for all capital cost items, a substantial cost savings for most recurring cost items will also be expected overall.

		()
Cost Categories	1% Real	4% Real
<b>One-Time Cost</b>	Interest Rate	Interest Rate
Primary Equipment, Ancillary, Shipping and Delivery	\$717,882	\$982,838
Installation Costs, Direct	\$1,125,759	\$1,541,254
Installation Costs, Indirect	\$425,426	\$582,442
Recurring Costs/ <mark>Savings</mark>		
Maintenance and Parts	(\$1,205,283)	(\$1,205,283)
Employee and Service Costs	(\$2,415,588)	(\$2,415,588)
Fuel Costs (including shipping)	(\$15,458,955)	(\$15,458,955)
Land Lease Cost	\$1,817,580	\$1,817,580
Total	(\$14,993,179)	(\$14,155,712)

Average Annual Compliance Costs/Savings (2027-2059)

Job Impacts	The direct effects of PAR 1135 were used as inputs to the REMI model in order to assess secondary/induced impacts for all the industries in the four-county economy on an annual basis and across a user-defined horizon.
	When the compliance cost is annualized using a 4% real interest rate, a close-to-zero job impact is projected for the four-county economy over the period from 2027 to 2059 because the positive job impact and negative job impact cancel each other out over the forecast period.
	In 2027, about 51 jobs are expected to be added to the economy due to compliance expenditures and additional spending associated with the installation of ZE and NZE electricity generating equipment. These additional jobs are expected to come from sectors such as Construction (NAICS 23), Professional, Scientific and Technical Services (NAICS 54), and Real Estate (531).
	The cost savings in fuel costs and maintenance and parts, which are both part of the recurring operation & maintenance (O&M) costs, is expected to shrink the markets for wholesale diesel and professional contractors, which will lead to jobs foregone in sectors of Wholesale Trade (NAICS 42) and Professional, Scientific and Technical Services (NAICS 54). In 2036, about 95 jobs are expected to be foregone in the four-county economy where 41 and six jobs foregone are projected to occur in the sectors of Wholesale Trade, and Professional, Scientific and Technical Services, respectively, due to the cost savings resulting from implementing PAR 1135.
Competitiveness	The overall impacts of PAR 1135 on production costs and delivered prices in the South Coast AQMD region is not expected to be significant. According to the REMI Model, PAR 1135 is projected to decrease the relative delivered price and the cost of production in the sector of Utilities (NAICS 22) in the region by 0.034% and 0.056% over the period from 2027 to 2059, respectively, which would result in relatively cheaper utility rates for consumers in the region.
Impact of CEQA Alternatives	Four alternatives to the proposed project were developed for the CEQA analysis conducted in the <u>Draft–Final</u> Subsequent Environmental Assessment (SEA): Alternative A – No Project, Alternative B – More Stringent, Alternative C – Less Stringent, and Alternative D – No ZE Equipment. Under Alternative A, the facility on Santa Catalina Island would still be subject to the 2018 amendment to Rule 1135, and thus, incur a positive compliance cost, while the facility would have a cost saving under the other alternatives analyzed. It is worth mentioning that Alternative B, the more stringent scenario, may lead to more NOx emission reductions and greater cost savings compared to the proposed project (PAR 1135). However, Alternative B may pose many logistical

and reliability challenges to the affected facility which could affect grid stability (e.g., reliability of providing uninterrupted supplies of electricity). Alternatives C and D would both be a cheaper alternative with greater cost savings than the proposed project but would result in fewer NOx emission reductions overall.

# INTRODUCTION

South Coast Air Quality Management District (South Coast AQMD) Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, is an industry-specific rule which applies to electricity generating units (i.e., boilers, turbines, engines, etc.) at investor-owned electric utilities, publicly owned electric utilities, or units having a generation capacity of at least 50 Megawatts (MW) of electrical power for distribution via the state or local electrical grid system. Rule 1135 was adopted in 1989 and amended in 1990, 1991, 2018 and 2022. In 2022, staff was directed to amend Rule 1135 again to include a revised Best Available Retrofit Control Technology (BARCT) assessment for the electricity generating units located on Santa Catalina Island with a specific focus on non-diesel alternatives and ZE/NZE technologies.

Accordingly, Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, establishes NOx mass emission limits to reflect the BARCT requirements to install ZE/NZE electricity generating equipment, and requirements to remove from service existing prime power diesel-internal-combustion engines for electricity generating units located on Santa Catalina Island. In addition, PAR 1135 establishes provisions for monitoring, reporting and recordkeeping for NZE electricity generating units and the units not required to install CEMS located on Santa Catalina Island. PAR 1135 also includes updates to remove outdated rule provisions and correct rule references, and other editorial changes. Note that PAR 1135 is partly related to the implementation of the 2022 AQMP Control Measure L-CMB-06: NOx Emission Reductions from Electricity Generating Facilities, which involves assessing low NOx and ZE technologies for power generation and replacing existing diesel internal combustion engines with lower-emitting technologies.

The implementation of PAR 1135 will potentially affect one existing electricity generating facility located on Santa Catalina Island, which currently operates six diesel internal combustion engines and 23 microturbines to generate power. The diesel internal combustion engines at this facility produce approximately 10 to 70 times more NOx per unit than any other electricity generating units subject to Rule 1135. As a result, the electricity generating facility located on Santa Catalina Island produces more than 10 percent of NOx emissions from all electricity generating facilities in South Coast AQMD region, while it provides less than 0.06% of the power generated by all the facilities.

PAR 1135 establishes a final NOx mass emission limit of six tpy for the electricity generating facility located on Santa Catalina Island which is based on a BARCT assessment that considered many repower parameters, including electricity demand, power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies. The requirements of PAR 1135 that will incur incremental compliance costs include purchasing and installing ZE (e.g., solar photovoltaic cells) and NZE equipment (e.g., propane-fueled linear generators and fuel cells), as well as replacing three existing diesel internal combustion engines and 23 microturbines with three Tier 4 Final diesel engines. To achieve the final six tpy NOx emission limit, a deployment of 30% ZE and 50% NZE equipment with 20% Tier 4 Final diesel engines may be needed in order to meet the electricity demands on Santa Catalina Island. This mix of equipment is estimated to reduce NOx emissions at the facility by 65.3 tpy, or 0.18 ton per day.

# **LEGISLATIVE MANDATES**

The legal mandates directly related to the assessment of PAR 1135 include South Coast AQMD Governing Board resolutions and various sections of the Health and Safety Code.

### South Coast AQMD Governing Board Resolution

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution that calls for an economic analysis associated with adopting and amending rules and regulations that considers all of the following elements:

- Affected industries
- Range of probable costs
- Cost-effectiveness of control alternatives
- Public health benefits

### Health and Safety Code Requirements

The state legislature adopted legislation which reinforces and expands the South Coast AQMD Governing Board resolution requiring socioeconomic impact assessments for rule development projects. Health and Safety Code Section 40440.8, which went into effect on January 1, 1991, requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which "will significantly affect air quality or emissions limitations."

To satisfy the requirements in Health and Safety Code Section 40440.8, the scope of the socioeconomic impact assessment should include all of the following information:

- Type of affected industries;
- Impact on employment and the regional economy;
- Range of probable costs, including those to industry;
- Availability and cost-effectiveness of alternatives to the rule;
- Emission reduction potential; and
- Necessity of adopting, amending, or repealing the rule in order to attain state and federal ambient air quality standards.

Health and Safety Code Section 40728.5, which went into effect on January 1, 1992, requires the South Coast AQMD Governing Board to: 1) actively consider the socioeconomic impacts of regulations; 2) make a good faith effort to minimize adverse socioeconomic impacts; and 3) include small business impacts. To satisfy the requirements in Health and Safety Code Section 40728.5, the socioeconomic impact assessment should include the following information:

- Type of industries or business affected, including small businesses; and
- Range of probable costs, including costs to industry or business, including small business.

Finally, Health and Safety Code Section 40920.6, which went into effect on January 1, 1996, requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes BARCT or "all feasible measures" requirements relating to emissions of ozone, Carbon monoxide (CO), Sulphur oxides (SOx), Nitrogen oxides (NOx), Volatile organic compounds

(VOC) and their precursors. The BARCT and cost-effectiveness analyses for PAR 1135 were conducted and are included in Chapters 2 and 4 of the Draft-Final Staff Report, respectively.

## AFFECTED FACILITIES AND EQUIPMENT

The implementation of PAR 1135 will affect one electricity generating facility located on Santa Catalina Island, which currently operates six diesel internal combustion engines and 23 microturbines to generate power. More than 90% of the power generated by the facility is from the six diesel internal combustion engines. However, most of the diesel internal combustion engines are over 29 years old and emit approximately 10 to 70 times more NOx per unit than other electricity generating units subject to Rule 1135. As a result, the electricity generating facility on the island emits more than 10% of total NOx emissions of all electricity generating facilities in the South Coast AQMD region, while producing less than 0.06% of total power generated. Table 1 lists detailed information of the equipment that will potentially be affected by the implementation of PAR 1135:

Equipment Type	Rating (MW)	Installation Year	NOx Emissions*
Diesel Engine Unit 7	1	1958	97 ppmv
Diesel Engine Unit 8	1.5	1964	97 ppmv
Diesel Engine Unit 10	1.125	1968	140 ppmv
Diesel Engine Unit 12	1.5	1976	82 ppmv
Diesel Engine Unit 14	1.4	1985	103 ppmv
Diesel Engine Unit 15	2.8	1995	51 ppmv
Microturbines (23 units)	1.49	2011	0.07 lb/MW-hr

Table 1PAR 1135 Affected Equipment

Key: ppmv = parts per million by volume, lb/MW-hr = pounds per Megawatt-hour

\*Represents estimated emission concentrations for the diesel engines and emission intensity for the microturbines.

### **Small Business Analysis**

South Coast AQMD defines a "small business" in Rule 102 for purposes of fees as one which employs 10 or fewer persons and which earns less than \$500,000 in gross annual receipts. South Coast AQMD also defines "small business" for the purpose of qualifying for access to services from the South Coast AQMD's Small Business Assistance Office (SBAO) as a business with an annual receipt of \$5 million or less, or with 100 or fewer employees. In addition to the South Coast AQMD's definitions of a small business, the federal Small Business Administration (SBA) and the federal 1990 Clean Air Act Amendments (1990 CAAA) also provide definitions of a small business.

The 1990 CAAA classifies a business as a "small business stationary source" if it: 1) employs 100 or fewer employees; 2) does not emit more than 10 tons per year of either VOC or NOx; and 3) is a small business as defined by SBA. The SBA definitions of small businesses vary by six-digit

NAICS codes. More specifically, the industry of Fossil Fuel Electric Power Generation (NAICS 221112) has 750 employees as the threshold below which a business is considered as small. Since subsidiaries under the same parent company are interest-dependent, the revenue and employee data of a facility's parent company will be used for the determination of its small business status. The affected electricity generating facility on Santa Catalina Island belongs to Southern California Edison (SCE), whose parent company is Edison International. Using data from Google Finance, Edison International had 13,003 employees and earned revenue of \$16.34 billion in 2023.<sup>1</sup> Thus, the affected facility will not be classified as a small business, based on all definitions of small business.

### **COMPLIANCE COSTS**

PAR 1135 establishes a final NOx mass emission limit of six tpy for the electricity generating facility located on Santa Catalina Island which is based on a BARCT assessment that considered many repower parameters, including electricity demand, power reliability, transmission, grid stability, space limitations, fuel delivery and storage, and challenges for the deployment of new ZE/NZE technologies. The requirements of PAR 1135 that will incur incremental compliance costs include purchasing and installing ZE (e.g., solar photovoltaic cells) and NZE equipment (e.g., propane-fueled linear generators and fuel cells), as well as replacing three existing diesel internal combustion engines (identified in Table 1 as Diesel Engine Units 8, 10 and 15) and 23 microturbines with three Tier 4 Final diesel engines. To achieve the final NOx emission limit of six tpy, a deployment of 30% ZE and 50% NZE equipment with 20% Tier 4 Final diesel engines may be needed in order to meet the electricity demands on Santa Catalina Island.

This section estimates the compliance costs of the proposed project (PAR 1135), including both one-time incremental equipment-purchase/installation costs and recurring operation and maintenance (O&M) costs/savings. Because the age of the equipment to be replaced ranges from 29 to 60 years old, the analysis assumed that the three replaced diesel internal combustion engines and 23 microturbines would have no resale value and thus, their replacement would not result in stranded assets. The replacement of the existing diesel internal combustion engines with Tier 4 Final diesel engines is expected between 2027 and 2035. In addition, the deployment of ZE (solar) equipment is anticipated to occur between 2030 and 2035, while the installation of propane-fueled linear generators and fuel cells (NZE equipment) is expected to occur between 2029 and 2035. All equipment is assumed in this analysis to have a useful life of 25 years. To ensure the confidentiality of cost data provided by SCE, the following subsections describe the cost assumptions for the proposed project as a whole, rather than for specific equipment categories, and this information was relied upon to estimate the overall compliance costs of PAR 1135. The costs are presented in 2023 dollars.

### Capital/One-Time Costs

### Primary Equipment, Ancillary, Shipping and Delivery

SCE estimates indicate that the total one-time purchase costs for all of the equipment needed to achieve the NOx emission limits in PAR 1135 would be \$18,170,638, which includes the purchase of primary and ancillary equipment, shipping and delivery.<sup>2</sup> As mentioned earlier in this chapter,

<sup>&</sup>lt;sup>1</sup> Google Finance, <u>https://www.google.com/finance/quote/EIX:NYSE</u>, accessed on August 6, 2024.

<sup>&</sup>lt;sup>2</sup> Note that all dollar amounts in this socioeconomic impact assessment are presented in 2023 dollars.

the analysis assumes that the existing diesel engines and microturbines will have no resale value; as such, all of the estimated purchase cost will be incremental for the affected facility.

### **Equipment Installation**

SCE also provided cost data on direct and indirect installation costs. The total direct installation costs are \$28,494,579 with the three most expensive items attributed to installation/concrete work, demolition, and load bank for testing, which constitute 67.8%, 7.5% and 4.3% of the total direct installation costs, respectively. The other items included in the total direct installation costs include plant renovation, contract startup and commissioning, contract construction site manager, controller support, construction trailer, contract test technician, and support commissioning. The total indirect installation costs are \$10,768,145, and include contract engineering, a repower feasibility study and SCE labor.

### **Operation & Maintenance (O&M) Costs**

### Fuel Costs (Including Shipping)

Due to the increased fuel efficiency of the new equipment, fuel costs are anticipated to be substantially lower under the proposed project. The incremental fuel costs/savings are estimated by taking the difference between the fuel costs during baseline conditions/existing setting (e.g., before the implementation of PAR 1135) and the fuel costs associated with implementing PAR 1135 (e.g., replacing aging, more polluting equipment with newer, less polluting technology). According to data provided by SCE, their existing equipment utilizes approximately 1.941,724 gallons per year of diesel and 164,597 gallons per year of propane. To calculate the total fuel costs associated with implementing PAR 1135, this analysis relied upon the California Energy Commission's mid-demand diesel price forecast over the 2025-2050 period, which is \$4.92 per gallon in 2023 dollars.<sup>3</sup> However, a long-term price forecast for propane was not available at the time of conducting this analysis, so the current propane price of \$1.97 per gallon was relied upon instead.<sup>4</sup> In addition, since both diesel and propane is delivered to the affected facility via barge, the fuel cost estimate includes an annual shipping expense of \$16,353,130. In total, the fuel costs for baseline conditions are estimated to be \$26,230,668. For implementing PAR 1135, the demand for propane is expected to increase to 900,000 gallons per year due to the eventual deployment of more propane-fueled equipment, while the demand and usage of diesel is expected to reduce to 388,355 gallons per year. Taking into account an increased shipping cost, if PAR 1135 is implemented, the total annual fuel costs are estimated at \$5,897,616, which represents an estimated annual fuel-cost saving of \$20,333,052.

### Maintenance & Parts, Employee & Service Costs

In addition to realizing savings in fuel costs, the new equipment anticipated to be installed as a result of PAR 1135 has the potential of realizing a cost savings on parts and employee costs for maintenance. Specifically, according to the baseline data provided by SCE, the annual maintenance and parts cost are \$3,977,434, while the costs associated with implementing PAR 1135 would be \$2,386,461, resulting in a net cost savings of \$1,590,974. Similarly, SCE's baseline

<sup>&</sup>lt;sup>3</sup> California Energy Commission, 2021. Presentation - Transportation Energy Demand Forecast, Docket 21-IEPR-03, <u>https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934&DocumentContentId=74780</u>, accessed August 7, 2024.

<sup>&</sup>lt;sup>4</sup> The propane price relied upon in this analysis is based on the current purchase price as provided by SCE.

data for employee and service costs indicate an annual cost of \$8,177,445, while the costs associated with implementing PAR 1135 would be approximately \$4,988,869, resulting in a net cost savings of \$3,188,576.

### Land Lease Costs

In order for solar equipment to be deployed, the affected facility does not have sufficient space within its existing footprint and thus will need to find and lease an offsite location with available land. SCE estimated that a land lease would cost \$2,399,206 per year. Because the leased land is specific to solar deployment and not applicable to baseline conditions, all land lease costs will be incremental for the affected facility.

### Other O&M Costs

In addition, the O&M costs include other cost categories, including insurance and permitting, hazard materials handling/treatment, annual emissions and performance testing, and propane handling, storage, and safety. Note that all these other O&M costs are almost identical for baseline conditions and under PAR 1135; therefore, incremental costs for these other O&M cost categories are not included in this analysis.

### Monitoring, Reporting and Recordkeeping Costs

PAR 1135 also establishes provisions for conducting monitoring, reporting and recordkeeping of NZE electricity generating units, but continuous emissions monitoring systems (CEMS) are not required. Staff confirmed that the affected facility already conducts monitoring, reporting and recordkeeping; therefore, any additional costs associated with monitoring, reporting and recordkeeping due to the implementation of PAR 1135 are expected to be minimal, if any. For this reason, the incremental costs related to monitoring, reporting and recordkeeping are not included in this analysis.

### **Total Compliance Costs of PAR 1135**

The compliance cost analysis covers the period of 2027-2059. To estimate the annual compliance cost of PAR 1135, the one-time capital cost over the 25-year useful life of the equipment was amortized and added to the recurring cost for each compliance year. Because of the recurring cost savings anticipated for the cost categories of maintenance and parts, employee and service, and fuel costs, the implementation of PAR 1135 is expected to result in an overall cost savings. As presented in Table 2, the total present value of cost savings over the forecast period is estimated at \$370.71 million and \$192.67 million, respectively, depending on the discount rate assumed (1% and 4%).<sup>5</sup> The average annual cost savings due to the implementation of PAR 1135 are estimated to range from \$14.99 million to \$14.16 million from 2027-2059, depending on different real interest rates assumed (1% to 4%). Table 2 presents the present value of the estimated compliance cost/savings and the average annual cost/savings of PAR 1135 by cost categories.

<sup>&</sup>lt;sup>5</sup> In 1987, South Coast AQMD staff began to calculate cost-effectiveness of control measures and rules using the Discounted Cash Flow method with a discount rate of 4%. Although not formally documented, the discount rate is based on the 1987 real interest rate on 10-year Treasury Notes and Bonds, which was 3.8%. The maturity of 10 years was chosen because a typical control equipment life is 10 years; however, a longer equipment life would not have corresponded to a much higher rate -- the 1987 real interest rate on 30-year Treasury Notes and Bonds was 4.4%. Since 1987, the 4% discount rate has been used by South Coast AQMD staff for all cost-effectiveness calculations, including BACT analysis, for the purpose of consistency.

Cost	Present Va (20)		Annual Average (2027 – 2059)		
Categories	1% Discount Rate	4% Discount Rate	1% Real Interest Rate	4% Real Interest Rate	
Capital Costs					
Primary Equipment, Ancillary, Shipping, Delivery	\$26,443,720	\$15,125,202	\$717,882	\$982,838	
Direct Installation Costs	\$41,468,146	\$23,718,830	\$1,125,759	\$1,541,254	
Indirect Installation Costs	\$15,670,876	\$8,963,382	\$425,426	\$582,442	
Recurring					
Costs/(Savings) Maintenance and Parts	(\$31,719,683)	(\$16,790,688)	(\$1,205,283)	(\$1,205,283)	
Employee Service Cost	(\$63,571,526)	(\$33,651,334)	(\$2,415,588)	(\$2,415,588)	
Fuel Costs (Including Shipping)	(\$406,836,463)	(\$215,357,262)	(\$15,458,955)	(\$15,458,955)	
Land Lease Cost	\$47,833,630	\$25,320,542	\$1,817,580	\$1,817,580	
Total	(\$370,711,300)	(\$192,671,329)	(\$14,993,179)	(\$14,155,712)	

Table 2Total Present Worth and Average Annual Estimated Costs of PAR 1135

Figure 1 presents the estimated annual compliance costs/savings of implementing PAR 1135 by cost categories. Implementation of PAR 1135 is expected to result in annual incremental compliance costs for land lease, direct and indirect installation costs, and equipment, ancillary, shipping and delivery costs, combined with a massive cost savings for the items such as maintenance and parts, employee and service, and fuel costs. Notably, the deployment of ZE and NZE equipment greatly reduces the demand for diesel and thus will result in an annual fuel-cost savings of \$15.46 million.

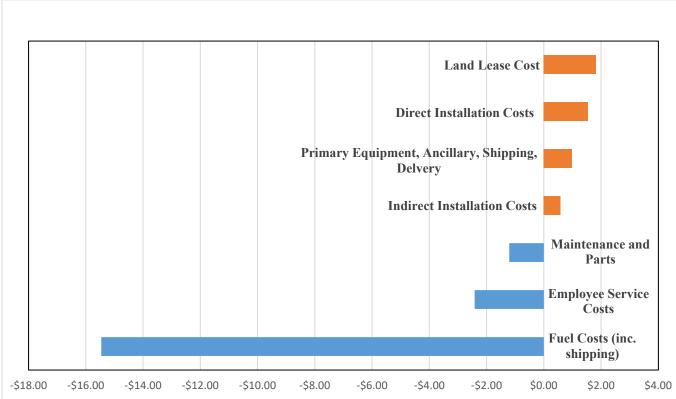


Figure 1 Annual Estimated Costs/Savings of PAR 1135 by Cost Category (in Millions)

### MACROECONOMIC IMPACTS ON THE REGIONAL ECONOMY

The Regional Economic Model (REMI, PI+ v3) was used to assess the total socioeconomic impacts of the anticipated policy change (i.e., PAR 1135 in this case).<sup>6, 7</sup> The model, which is comprised of analytical modules with embedded datasets and econometric features, links the economic activities occurring in the counties of Los Angeles, Orange, Riverside, and San Bernardino, and for each county and considers five interrelated blocks: 1) output and demand; 2) labor and capital; 3) population and labor force; 4) wages, prices and costs; and 5) market shares.<sup>8</sup>

It should be noted that the REMI model is not designed to assess impacts on individual operations. The model was used to assess the impacts of the proposed project on various industries that make up the local economy. Cost impacts on individual operations were assessed outside of the REMI model and used as inputs into the REMI model.

### **Impacts of PAR 1135**

The assessment herein is performed relative to a baseline ("business as usual") forecast where PAR 1135 would not be implemented. This analysis assumes that the affected facility would finance the capital and installation costs of control equipment at a 4% real interest rate and that these one-time costs are amortized and incurred over the life of the equipment. To achieve the final NOx emission limit of six tpy in PAR 1135, the affected facility may purchase and install solar photovoltaic cells (ZE equipment), propane-fueled linear generators and fuel cells (NZE equipment), and replace three existing diesel internal combustion engines and all 23 microturbines with three Tier 4 Final diesel engines. Installing and operating the equipment from the year 2027 onwards would result in an average annual cost savings of approximately \$14.99 million when costs/savings are annualized using a 4% real interest rate, or \$14.16 million when evaluated using a 1% real interest rate.

Direct effects of PAR 1135 are used as inputs to the REMI model in order for the model to assess secondary and induced impacts for all the industries in the four-county economy on an annual basis and across a user-defined horizon: 2027 (the first year when the affected facility is assumed to incur the compliance cost due to PAR 1135 implementation) to 2059 (when all equipment has been fully amortized). Direct effects of PAR 1135 include: 1) additional costs that the facility would incur by installing control equipment; 2) additional sales by local vendors of equipment, devices, or services which are needed to meet the proposed requirements; and 3) cost savings due to reduced fuel costs, maintenance and parts, employee labor, and service expenses.

In addition to the direct effects, the additional spending on solar equipment, propane-fueled linear generators and fuel cells, Tier 4 Final diesel engines, and land lease would increase the spending

<sup>&</sup>lt;sup>6</sup> Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3. 2023.

<sup>&</sup>lt;sup>7</sup> REMI v3 has been updated based on The U.S. Economic Outlook for 2022-2024 from the University of Michigan's Research Seminar in Quantitative Economics (RSQE) release on May 19, 2023, The Long-Term Economic Projections from CBO (supplementing CBO's March 2023 report, The 2023 Long-Term Budget Outlook).

<sup>&</sup>lt;sup>8</sup> Within each county, the industrial sectors are made up of 156 private non-farm industries and sectors, three government sectors, and a farm sector. Trade flows are captured between sectors as well as across the four counties and the rest of U.S. Market shares of industries are dependent upon their product prices, access to production inputs, and local infrastructure. The demographic/migration component has 160 ages/gender/race/ethnicity cohorts and captures population changes in births, deaths, and migration. For details, please refer to REMI online documentation at <a href="http://www.remi.com/products/pi">http://www.remi.com/products/pi</a>.

and sales of businesses across various sectors, most of which are located in the South Coast AQMD region. Meanwhile, cost savings in fuel costs, maintenance and parts, and employee labor and service expenses would decrease the revenue of other sectors, such as fuel dealers. Table 3 lists the industry sectors modeled in REMI that would either incur cost or benefit from the compliance expenditures.

Source of Compliance Cost	REMI Industries Incurring/ Achieving Compliance	<b>REMI Industries Benefitting/Losing from Compliance Spending/Saving (NAICS)</b>
	Costs/Savings (NAICS)	
		Capital: Machinery Manufacturing (333)
Subtotal, Purchase Costs		<i>Capital:</i> Electrical Equipment, Appliance, and Component Manufacturing (335)
		<i>Capital:</i> Computer and Electric Product Manufacturing (334)
Direct Installation Costs	Utilities (22)	Capital:
Indirect Installation Costs	(22)	Construction (23)
Fuel Costs		<i>Recurring:</i> Wholesale Trade (42)
Land Lease Cost		<i>Recurring:</i> Real Estate (531)
Employee Labor and Service Cost		N/A*
Maintenance and Parts		in and the astagamy of maintanance and marte is modeled as

 Table 3

 Industries Affected by Compliance Costs/Savings of PAR 1135 in REMI Model

\*The wage income earned from employee and service cost, and the category of maintenance and parts is modeled as an increase in compensation for employees in the Fossil Fuel Electric Power Generation industry and thus, does not directly benefit a single industry.

### **Regional Job Impacts**

When the compliance cost is annualized using a 4% real interest rate, the proposed net job impacts per year is close to zero on average from 2027 to 2059. The implementation of PAR 1135 has positive job impacts on the regional economy over time in the sectors of Construction (NAICS 23) and Utilities (NAICS 22) sectors due to compliance expenditures. In 2027, 51 additional jobs are expected to be added to the economy associated with the installation of ZE and NZE electricity generating equipment. These additional jobs are expected to come from sectors such as Construction (NAICS 23), Professional, Scientific and Technical Services (NAICS 54), and Real Estate (531).

However, the implementation of PAR 1135 will also result in jobs foregone in the sectors of Wholesale Trade (NAICS 42) and Professional, Scientific and Technical Services due to the cost savings from fuel and maintenance and parts, which will lead to an anticipated shrink in the markets for diesel wholesale and professional contractors.<sup>9</sup> The biggest negative job impacts are expected to occur in 2036 when approximately 95 jobs forgone are expected in the four-county economy; from the perspective of individual sectors, the sectors of Wholesale Trade, and Professional, Scientific and Technical Services are projected to have 41 and six jobs foregone, respectively.

Overall, the positive job impacts brought about by the installation of ZE/NZE equipment and the jobs foregone resulting from the cost saving will cancel each other out, leading to close-to-zero annual average job impacts over the 2027-2059 period.<sup>10</sup>

It is important to note that these projections of job impacts are based on assumptions and analysis using the REMI model. The actual job impacts may vary depending on various factors and uncertainties in the economy and industry dynamics. As presented in Table 4, many major sectors of the regional economy would experience positive or negative job impacts in later years from the secondary or induced effects of implementing PAR 1135.

<sup>&</sup>lt;sup>9</sup> Note that the cost savings will benefit Southern California Edison and thus bring about jobs gained in the sector of Utilities (NAICS 22). However, because the sectors of Wholesale Trade and Professional, Scientific and Technical Services are much more labor-intensive than the Utilities sector, the jobs foregone in the former sectors will outweigh the jobs gained in the latter, when the cost savings of PAR 1135 is realized, which results in net jobs foregone.

<sup>&</sup>lt;sup>10</sup> Specifically, the REMI model predicts a 0.12 job gained over the period, rounded to zero.

Industry (NAICS)	2027	2036	2047	2057	2059	Annual Average (2027-2059)	Baseline Number of Jobs (Average, 2027-2059)	Percent Relative to Baseline
Wholesale Trade (42)	1	-41	-29	-22	-21	-22	412,664	0.0053%
Couriers and Messengers (492)	0	-7	-5	-5	-5	-4	285,800	0.0014%
Ambulatory Health Care Services (621)	2	-7	-3	-2	-2	-2	749,889	0.0003%
Personal and Laundry Services (812)	1	-4	-2	-2	-2	-2	449,350	0.0004%
State and Local Government (NA)	2	-4	1	1	2	0	983,463	0%
Computer and Electronic Product Manufacturing (334)	1	0	1	1	1	1	120,786	0.0008%
Professional, Scientific, and Technical Services (54)	2	-6	5	7	7	3	1,079,713	0.0003%
Real Estate (531)	2	2	5	5	5	4	790,077	0.0005%
Utilities (22)	0	5	11	10	10	7	21,192	0.0330%
Construction (23)	25	3	17	10	10	16	587,476	0.0027%
Other Industries	10	-32	1	5	6	-2	7,506,336	0%
All Industries	51	-95	4	13	15	0	12,986,747	0%

Table 4Projected Job Impacts of PAR 1135 for Selected Industries and Years

Note: Totals may not sum due to rounding.

In addition, in 2013, South Coast AQMD contracted with Abt Associates Inc. to review the South Coast AQMD socioeconomic assessments for Air Quality Management Plans and individual rules with the goal of providing recommendations that could enhance South Coast AQMD's socioeconomic analyses. In 2014, Abt Associates Inc. published a report which included a recommendation for South Coast AQMD to enhance socioeconomic analyses by testing major assumptions through conducting a scenario analysis. As such, South Coast AQMD generally includes in Socioeconomic Impact Assessments an alternative worst-case scenario which assumes that the affected facilities would purchase all feasible monitoring equipment and services from providers located outside of the South Coast AQMD's jurisdiction.<sup>11</sup> This hypothetical scenario tests the sensitivity of the previously discussed scenarios where the analyses rely on REMI's embedded assumptions about how the capital and O&M spending would be distributed inside and

<sup>&</sup>lt;sup>11</sup> Abt Associates Inc., August 2014, Review of the SCAQMD Socioeconomic Assessments, Chapter 6, Section 3, <u>https://www.aqmd.gov/docs/default-source/Agendas/aqmp/scaqmd-report---review-socioeconomic-assessments.pdf</u>, accessed August 16, 2024.

outside the region. As a practical matter, however, increased jobs in the manufacturing and construction sectors related to the purchase and installation of ZE/NZE electricity generating equipment are likely to be offered by local equipment manufacturers and contractors.

This alternative worst-case scenario would result in an annual average of approximately 20 jobs foregone. The 20 jobs foregone represents roughly 0.0002% of total jobs in the South Coast AQMD region. Figure 2 presents a projected time series of job impacts over the 2027 - 2059 period for both the standard and worst-case forecasts.

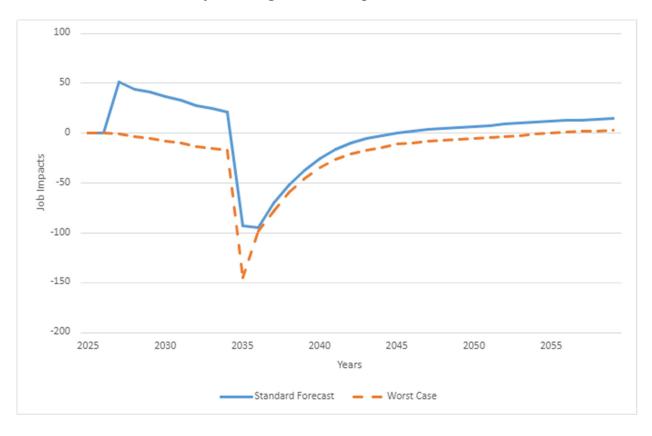


Figure 2 Projected Regional Job Impacts, 2027-2059

### Competitiveness

The overall cost savings brought about by PAR 1335 would decrease the cost of services rendered by the Utilities sector in the region. The magnitude of the impact is dependent upon the size, diversification, and infrastructure in a local economy as well as interactions among industries. However, a large, diversified, and resourceful economy would absorb the aforementioned impacts with relative ease.

Meanwhile, changes in production/service costs in the Utilities sector would also affect the prices of goods produced locally in other sectors. Note that the relative delivered price of goods is based on the costs of production and transportation necessary to deliver the goods to where they will be

consumed or used. In addition, the average price of goods at the place of use reflects prices of local production combined with the cost of and importing them elsewhere.

According to the REMI Model, the implementation of PAR 1135 will have minimal impact on the relative delivered price and the production cost across various sectors. Among all sectors, the Utilities sector will be the most affected in 2035, when the relative delivered price and production cost will decrease in the South Coast AQMD jurisdiction by 0.051% and 0.083%, respectively, due to the cost savings of PAR 1135. On average, the relative delivered price and production cost in the Utilities sector will minimally decrease by 0.034% and 0.056%, respectively, over the period 2027-2059.

### **CEQA ALTERNATIVES**

The California Environmental Quality Act (CEQA) requires an evaluation of alternatives when a proposed project may have significant adverse environmental impacts. Because potentially significant operational air quality impacts may occur if PAR 1135 is implemented, four alternatives were developed for the CEQA analysis conducted in the Draft-Final Subsequent Environmental Assessment (SEA): Alternative A – No Project, Alternative B – More Stringent, Alternative C – Less Stringent, and Alternative D – No ZE Equipment. This section provides a description of each alternative as well as an assessment of possible socioeconomic impacts resulting from these alternatives.

### Alternative A – No Project

CEQA requires the evaluation of a specific "No Project" alternative which considers what would happen if the proposed project (PAR 1135) were not approved, i.e., no amendments would be made to Rule 1135. Under Alternative A, the "No Project" scenario, the January 2022 amendments to Rule 1135 would remain in effect, which requires the electricity generating facility on Santa Catalina Island to comply with the final annual NOx limit of 13 tpy by January 1, 2026, but with an option to extend the deadline to January 1, 2029. Additionally, under Alternative A, the installation of any new diesel internal-combustion engines would be prohibited on or after January 1, 2024. Note that the continued implementation of the 2022 amendments to Rule 1135 will not impose any additional costs on the affected facilities.

Prior to the 2022 amendments, Rule 1135 was amended in November 2018 which aimed to reduce NOx emissions via a transition from South Coast AQMD Regulation XX – Regional Clean Air Incentives Market (referred to as the NOx RECLAIM program) to a command-and-control rule subject to South Coast AQMD Regulation XI – Source Specific Standards. The greatest compliance cost of the 2018 amendment was associated with installing natural gas turbines and replacing old diesel engines. The 2018 amendments to Rule 1135 had an estimated annual cost of \$11.42 million with 32 affected facilities which emitted 662.98 tons of NOx in 2017. The electricity generating facility on Santa Catalina Island emitted 75.43 tons of NOx, or 11.38% of the total 662.98 tons of NOx emissions. At the time for the 2018 amendments to Rule 1135, the compliance costs of Alternative A were estimated based on the compliance costs for the entire universe of affected facilities. For the currently proposed project (PAR 1135) which affects one facility, the cost analysis of Alternative A relies on taking the proportion of NOx emissions only attributed to the facility on Santa Catalina Island, (e.g., the NOx emissions share of 11.38%). As

such, the analysis of Alternative A for PAR 1135 estimated an annual compliance cost of roughly \$1.3 million in 2023 dollars using a 4% real interest rate.

### Alternative B – More Stringent

For PAR 1135, the facility on Santa Catalina Island will be required to meet the final six tpy NOx emission limit by 2035. Alternative B analyzes a scenario that is more stringent than PAR 1135 where the final NOx emission limit is 1.8 tpy by 2035. In order to reduce NOx emissions to 1.8 tpy, under Alternative B electricity on Santa Catalina Island will need to be generated from a combination of 65% NZE equipment, 30% ZE equipment, and 5% from Tier 4 Final diesel engines. Using a 4% real interest rate, Alternative B is estimated to result in an annual cost savings of \$14,608,768 over the 2027-2059 period. Note that compared to the proposed project (PAR 1135) which assumes that electricity will be produced from a combination of 50% NZE equipment, 30% ZE equipment, and 20% Tier 4 Final diesel engines, Alternative B would lead to a greater cost savings than PAR 1135 and could achieve more NOx emission reductions by an additional 4.2 tpy. However, according to SCE's representatives, the implementation of Alternative B would pose many logistical and reliability challenges to the affected facility which could affect grid stability (e.g., reliability of providing uninterrupted supplies of electricity).

### Alternative C – Less Stringent

For PAR 1135, the facility on Santa Catalina Island will be required to meet the final six tpy NOx emission limit by 2035. Alternative C analyzes a scenario that is less stringent than PAR 1135 where the final NOx emission limit is 13 tpy by 2035. By having to reduce fewer NOx emissions under Alternative C by 2035, electricity on Santa Catalina Island could be generated from a combination of 50% NZE equipment, and 50% from Tier 4 Final diesel engines at a lower cost than PAR 1135. Implementing Alternative C would result in seven tpy more NOx emissions than PAR 1135 with an average annual cost savings of \$15,590,383 over the period from 2027 to 2059, using a 4% real interest rate.

### Alternative D – No ZE Equipment

For PAR 1135, the facility on Santa Catalina Island will be required to meet the final six tpy NOx emission limit by 2035. Alternative D analyzes a scenario that does not rely on the use of ZE equipment and is less stringent than PAR 1135 where the final NOx emission limit is 13 tpy by 2030. By having to reduce fewer NOx emissions under Alternative D but by 2030, which is five years earlier than what is considered under Alternative C, electricity on Santa Catalina Island could also be generated from a combination of 50% NZE equipment, and 50% from Tier 4 Final diesel engines at a lower cost than PAR 1135.

Similar to Alternative C, Alternative D would result in seven tpy more NOx emissions compared to PAR 1135 with an average annual cost savings of \$18,592,220 over the 2027-2054 period, using a 4% real interest rate.

### Summary of CEQA Alternatives Analysis

Table 5 presents a summary of the CEQA alternatives analyzed in terms of annual average cost/savings, net present value (NPV) of compliance costs/savings, and forecasted job impacts. The job impacts of Alternative A is forecasted for the 2019-2045 period, according to the Socioeconomic Impact Assessment previously conducted for the 2018 amendments to Rule 1135.

The annual job impacts for PAR 1135, Alternative B and Alternative C are forecasted for the 2027-2059 period. The annual job impacts for Alternative D is analyzed over the 2027-2054 period.

Alternatives	Average Annual Cost/ <mark>Savings</mark> (4%)	NPV (4%)	Average Annual Job Impacts
Proposed Project (PAR 1135)	(\$14,155,712)	(\$192,671,329)	0
Alternative A — No Project	\$1,300,132	\$20,112,958	-15
Alternative B — More Stringent	(\$14,608,768)	(\$198,838,688)	0
Alterative C — Less Stringent	(\$15,590,383)	(\$214,061,243)	4
Alternative D — No ZE Equipment	(\$18,592,220)	(\$266,166,011)	5

Table 5Average Annual Costs, NPV and Job Impacts by CEQA Alternative

Under Alternative A, the facility on Santa Catalina Island would still be subject to the 2018 amendment to Rule 1135, and thus, incur a positive compliance cost, while the facility would have a cost saving under the other alternatives analyzed. It is worth mentioning that Alternative B, the more stringent scenario, may lead to more NOx emission reductions and greater cost savings compared to the proposed project (PAR 1135). However, Alternative B may pose many logistical and reliability challenges to the affected facility which could affect grid stability (e.g., reliability of providing uninterrupted supplies of electricity). Alternatives C and D would both be a cheaper alternative with greater cost savings than the proposed project but would result in fewer NOx emission reductions overall.

### REFERENCES

Abt Associates Inc., August 2014, Review of the SCAQMD Socioeconomic Assessments, Chapter 6, Section 3, <u>https://www.aqmd.gov/docs/default-source/Agendas/aqmp/scaqmd-report---review-socioeconomic-assessments.pdf</u>.

California Energy Commission, 2021 Electricity and Natural Gas Demand Forecast, <u>https://efiling.energy.ca.gov/GetDocument.aspx?tn=240934&DocumentContentId=74780</u>

Google Finance, August 2024. Edison International (EIX), <u>https://www.google.com/finance/quote/EIX:NYSE</u>

Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3.2, 2024.

South Coast AQMD, October November 2018, Draft Final Staff Report for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1135/par-1135---dsr---final.pdf

http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-nov2-027.pdf

South Coast AQMD, December-January 20212022, Draft-Final Staff Report for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, <u>https://www.aqmd.gov/does/default-source/rule-book/Proposed-Rules/1135/par-1135-and-pr-429-2-draft-staff-report---21-12-07.pdf</u>

http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2022/2022-jan7-022.pdf

South Coast AQMD, July 2024, Draft Staff Report for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, <u>https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1135/par-1135-pdsr\_07-18-24-final.pdf</u>

South Coast, AQMD, August 2024, Draft Subsequent Environmental Assessment for Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, <u>https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2024/draft-sea-with-noc-and-appendices-par-1135-final.pdf</u>



**Proposed Amended Rule 1135** Emissions of Oxides of Nitrogen from Electricity Generating Facilities

Board Meeting October 4, 2024

# **Rule 1135 Regulatory Background**

1989	Rule adopted to electricity gener	address NOx emis ating facilities	sions from	
2018		etrofit Control Tecl established for all e oment	0, (	
2022	Most recently, a for Santa Catalin			
		emissions by a certa ctricity generating fa <b>2025</b>		
	50 tons per year	45 tons per year	13 tons per year	

Adopted resolution directs staff to conduct BARCT assessment for Santa Catalina Island electricity generating facility

# Impacted Equipment NOx Concentrations

PAR 1135 affects one electricity generating facility located on Santa Catalina Island

- Over 90% of the power generated at site is from diesel engines
- Diesel engines emit 10 to 70 times higher NOx emission concentrations than other equipment subject to Rule 1135

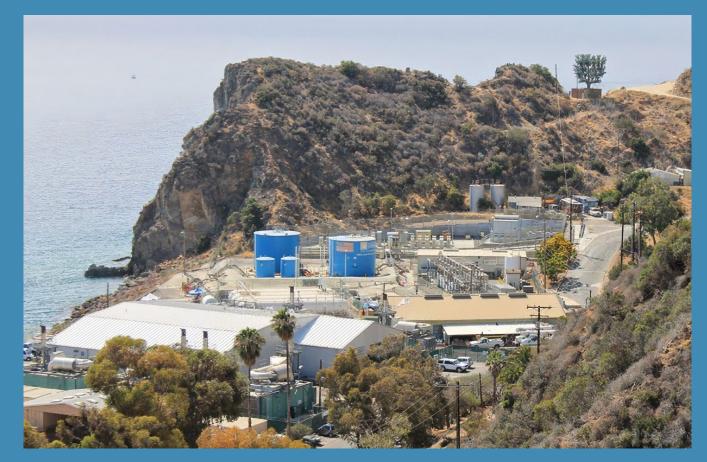
### PAR 1135 Affected Equipment

Equipment Type	Rating (MW)	Construction Year	NOx Emissions*
Diesel Engine Unit 7	1	1958	97 ppmv
Diesel Engine Unit 8	1.5	1964	97 ppmv
Diesel Engine Unit 10	1.125	1968	140 ppmv
Diesel Engine Unit 12	1.5	1976	82 ppmv
Diesel Engine Unit 14	1.4	1985	103 ppmv
Diesel Engine Unit 15	2.8	1995	51 ppmv
Microturbines (23 units)	1.49	2011	0.07 lb/MW-hr

\*NOx emissions are corrected to 15% O<sub>2</sub>, dry; NOx emissions for diesel engines calculated by using the uncontrolled NOx emissions and control efficiency specified in Southern California Edison's Best Available Control Technology and Alternative Analysis for Pebbly Beach Generating Station (Version 00; Revised April 30, 2021) and NOx emissions for microturbines reflect the emission standard in the California Air Resources Board Distributed Generation Certification Regulation

## **Technological Feasibility Challenges on Santa Catalina Island**

- Challenges for the deployment of Zero- and/or Near Zero-Emission technologies on Santa Catalina Island include:
  - Fuel must be barged
  - Small facility footprint
    - Acquiring additional land is challenging
  - Need 30-day fuel storage as backup when barge is unable to deliver fuel
    - Must provide critical utilities for island



## **Proposed Emission Limits**

### **Proposed Emission Limits**

Compliance Date	NOx (tpy)
January 1, 2027	45
January 1, 2028	30
January 1, 2030	13
January 1, 2035	6

### Feasibility Analysis

- Analyses will be conducted by SCE for the 13 tpy NOx limit and the 6 tpy NOx limit
- Feasibility analyses will review grid stability, construction plans, etc. to determine if timeline is achievable
- Time extension can be requested for up to three years
- Feasibility study cannot change NOx emission limits

### **Time Extension**

• Up to three additional years at each compliance date for extenuating circumstances

## **Power Generation Profile at Final Emission Limit**



### Zero-Emission Units

- ~ 30% of power generation
- Renewable power source such as solar or hydrogen fuel cell



### Near-Zero Emission Units

- ~ 50% of power generation
- Would likely utilize propane as fuel



### Three Tier 4 Final diesel engines

- ~ 20% of power generation
- No further diesel engines allowed
- Legacy engines removed

## **Provisions to Minimize Use of Diesel Engines**

Diesel engines installed prior to rule adoption must cease operation by 2030 or six months after any applicable extensions

Prohibition to install: 1) more than three new diesel internal combustion engines; and 2) engines with a maximum cumulative rating greater than 5.5 MW

Any electric generating unit installed after 2028 must meet Zero-Emission or Near Zero-Emission emission standards



# **Cost-Effectiveness Analysis**

Cost-effectiveness is measured in terms of the cost in dollars per ton of air pollutant reduced

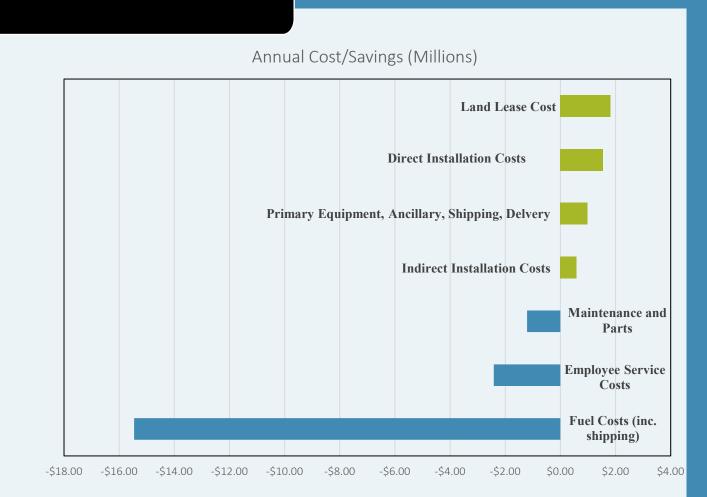
- The final 6 tpy NOx limit results in 65.3 tpy NOx emission reductions
- The 2022 Air Quality Management Plan (AQMP) established a cost-effectiveness threshold of \$325,000/ton NOx reduced, adjusted for inflation (\$388,500 in 2023 dollars)
- The final 6 tpy final NOx limit has a costeffectiveness of \$32,000/ton NOx reduced

	Final NOx Limit of 6 tpy
Net Annual Costs (includes annualized capital and recurring costs)	\$2,076,000
NOx Emission Reductions (Tons/Year)	65.3
Cost- Effectiveness (\$/Ton of NOx Reduced)	\$32,000

# Socioeconomic Impact Assessment

### Socioeconomic Impacts:

- Average annual savings ranges from ~\$14.99 million to ~\$14.16 million using a 1% to 4% real interest rate, respectively, from 2027-2059
  - Cost savings mainly attributable to a reduction in fuel costs
- Negligible job impacts on average from 2027-2059



## Key Issue 1: BARCT Assessment Was Not Properly Conducted and NOx Mass Limits Should be Lower

- South Coast AQMD performed BARCT assessment which takes into consideration environmental impacts, energy impacts, and economic impacts
- Facility is a critical utility for Santa Catalina Island
  - Provides electricity, water movement, and waste systems
  - Reliable power is crucial in avoiding blackouts and continued operations for infrastructure
  - BARCT assessment evaluated reliability, grid stability, space limitations, and fuel delivery
- Due to fuel delivery uncertainty, a lesser amount of propane delivery was evaluated which will provide sufficient reliable power that supports compliance with rule emission caps and seeks to avoid rule violations



## Key Issue: Implementation Dates for NOx Limits are Too Long

- Proposed implementation dates reflect challenges of installing new ZE/NZE technologies
- Facility must continually provide reliable power during replacement of older diesel engines
- Feasibility analyses and time extensions allowed to address issues arising during design, procurement, permitting, and installation



## Recommendation

Certify Final Subsequent Environmental Assessment

Adopt Proposed Amended Rule 1135

### 1 Back to Agenda

#### BOARD MEETING DATE: October 4, 2024

AGENDA NO. 23

- PROPOSAL: Determine That Coachella Valley Attainment Plan for 2008 8-Hour Ozone Standard is Exempt from CEQA; and Adopt Coachella Valley Attainment Plan for 2008 8-Hour Ozone Standard
- SYNOPSIS: The Coachella Valley is in "extreme" nonattainment for the 2008 8-hour ozone NAAQS with an attainment date of July 20, 2032. On April 7, 2023, the Coachella Valley was reclassified from "severe-15" to "extreme" nonattainment to resolve a transportation conformity freeze. An attainment demonstration and other SIP planning elements have been developed to comply with the federal Clean Air Act and U.S. EPA's SIP requirements for "extreme" nonattainment areas. Updated emissions inventory and modeling analysis indicate that ongoing implementation of currently adopted regulations and programs by both South Coast AQMD and CARB will lead to attainment of this standard by the attainment date. In addition, the control strategy outlined in the 2022 AQMP will further ensure Coachella Valley attains this standard on time, if not earlier.

COMMITTEE: Mobile Source: August 16, 2024, Reviewed

### **RECOMMENDED ACTIONS:**

Adopt the attached Resolution:

- 1. Determining that Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard is exempt from the requirements of CEQA; and
- 2. Adopting the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard and directing staff to forward the Coachella Valley Ozone Plan to CARB for approval and submission to U.S. EPA for inclusion in the SIP.

Wayne Nastri Executive Officer

### Background

The Coachella Valley is defined as the desert portion of Riverside County in the Salton Sea Air Basin under the jurisdiction of South Coast AQMD and is the most populated area in this desert region, which encompasses several communities, including Palm Springs, Indio, Coachella, and Mecca. The region fails to meet federal ozone standards mostly due to the transport of air pollution from the South Coast Air Basin.

The Coachella Valley was originally classified as a "severe-15" nonattainment area for the 2008 8-hour ozone standard with an attainment date of July 20, 2027. The 2016 AQMP, submitted to U.S. EPA in 2017, included the strategy to attain the standard by the attainment date. However, as of August 16, 2021, an updated on-road mobile source emissions model estimated higher emissions for the same vehicle classes and traffic activities. This discrepancy resulted in the emissions associated with motor vehicles no longer being consistent with, or "conforming" to, the requirements of the underlying SIP. This in turn resulted in a transportation conformity lockdown – meaning that no new transportation projects could proceed in the region – impacting billions of dollars' worth of transportation projects. To resolve this conformity lockdown, South Coast AQMD requested that U.S. EPA reclassify Coachella Valley to "extreme" nonattainment, which provided an opportunity to resolve the conformity lockdown.

In March 2023, U.S. EPA approved South Coast AQMD's request to reclassify the Coachella Valley to "extreme" nonattainment with a new attainment date of July 20, 2032 and established a deadline of October 7, 2024 for South Coast AQMD to submit a new plan to demonstrate attainment and comply with other planning requirements.<sup>1</sup> An adequacy finding for the updated Motor Vehicle Emissions Budgets (MVEB) was also issued by U.S. EPA, thereby resolving the lockdown.<sup>2</sup>

### Proposal

The primary purpose of the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard (Coachella Valley Ozone Plan or Plan) is to satisfy the "extreme" nonattainment area planning requirements. Specifically, the Coachella Valley Ozone Plan provides the strategy and the underlying technical analysis for how the region will

<sup>&</sup>lt;sup>1</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley Ozone Nonattainment Area; Reclassification to Extreme, 88 Fed. Reg. 14291 (March 8, 2023). <u>https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-planning-purposes-california-coachella-valley-ozone</u>

<sup>&</sup>lt;sup>2</sup> U.S. EPA, Adequacy Status of Motor Vehicle Emissions Budgets in 2008 8-Hour Ozone Extreme Area and Reasonable Further Progress Plan for Coachella Valley; California, 88 Fed. Reg. 18314 (March 28, 2023). <u>https://www.federalregister.gov/documents/2023/03/28/2023-06344/adequacy-status-of-motor-vehicle-emissions-budgets-in-2008-8-hour-ozone-extreme-area-and-reasonable</u>

meet the 2008 8-hour ozone standard in the attainment year of 2031.<sup>3</sup> The overall control strategy for meeting the 2008 8-hour ozone standard in Coachella Valley is based on the continued implementation of rules and regulations adopted by South Coast AQMD and CARB. Implementation of the control measures in the 2022 AQMP will provide additional reductions and assurance that the 2008 8-hour ozone standard will be met by 2031, if not earlier, although these reductions are not necessary for attainment. Therefore, no new control measures are proposed in this Plan.

### **Public Process**

The Draft Coachella Valley Ozone Plan was released on July 31, 2024 for public review and comment. One written comment was received on the Draft Coachella Valley Ozone Plan and responses are included in Chapter 7 of the Plan. In addition, a public consultation meeting was held on August 14, 2024.

### **Resource Impacts**

The Coachella Valley Ozone Plan will have nominal impacts on South Coast AQMD resources.

### California Environmental Quality Act (CEQA)

Pursuant to CEQA Guidelines Sections 15002(k) and 15061, the proposed project (Coachella Valley Ozone Plan) is exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3) and 15308. Further, there is no substantial evidence indicating that any of the exceptions in CEQA Guidelines Section 15300.2 apply to the proposed project. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062. If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties, and with the State Clearinghouse of the Governor's Office of Planning and Research.

### **Socioeconomic Impact Assessment**

No socioeconomic impact assessment is required under Health and Safety Code Sections 40440.8 and 40728.5, because the Coachella Valley Ozone Plan does not constitute a rule or regulation within the scope of those statutes. Additionally, the emission reductions relied upon in the Coachella Valley Ozone Plan are already accounted for in the 2022 AQMP. As such, no additional socioeconomic impacts beyond those analyzed in the 2022 AQMP are anticipated. Therefore, the proposed project will not result in any new socioeconomic impacts.

### AQMP and Legal Mandates

The Coachella Valley Ozone Plan is consistent with the federal Clean Air Act (CAA)

<sup>&</sup>lt;sup>3</sup> The attainment year ozone season is defined by 40 CFR 51.1300(g) as the ozone season immediately preceding the nonattainment area's attainment date, which is July 20, 2032; therefore, 2031 is the attainment year for the Coachella Valley.

and the U.S. EPA's guidelines and is required as part of the SIP revision to address the federal CAA planning requirements for "extreme" nonattainment areas.

### Attachments

- A. Resolution
- B. Draft Final Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard
- C. Notice of Exemption from CEQA
- D. Board Presentation

#### ATTACHMENT A

#### **RESOLUTION NO. 24-**

A Resolution of the South Coast Air Quality Management District (South Coast AQMD) Governing Board determining that the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone National Ambient Air Quality Standard (Coachella Valley Ozone Plan) is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board adopting the Coachella Valley Ozone Plan and directing staff to forward the Coachella Valley Ozone Plan to the California Air Resources Board (CARB) for approval and subsequent submission to the United States Environmental Protection Agency (U.S. EPA) for inclusion in the State Implementation Plan (SIP).

WHEREAS, the South Coast AQMD Governing Board finds and determines that the Coachella Valley Ozone Plan is considered a "project" pursuant to CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines after conducting a review of the proposed project (Coachella Valley Ozone Plan) in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, that the Coachella Valley Ozone Plan is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that Coachella Valley Ozone Plan is an attainment strategy which relies on the continued implementation of previously adopted rules and regulations, and does not propose new requirements which will result in additional physical modifications, no adverse environmental impacts are expected. Thus, it can be seen with certainty that there is no possibility that the proposed project may have any significant adverse effects on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment, because the Coachella Valley Ozone Plan is intended to further protect or enhance the environment; and

**WHEREAS,** the South Coast AQMD Governing Board has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemption as set forth in CEQA Guidelines Section 15300.2 – Exceptions, apply to the proposed project; and

**WHEREAS**, the South Coast AQMD staff has prepared a Notice of Exemption for the proposed project, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, the Coachella Valley Ozone Plan and supporting documentation, including but not limited to, the Notice of Exemption and Draft Final Coachella Valley Ozone Plan were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, and has taken and considered staff testimony and public comments prior to approving the project; and

WHEREAS, the Coachella Valley was originally classified as a "severe-15" nonattainment area for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS) with an attainment date of July 20, 2027; and

WHEREAS, a comprehensive SIP addressing the "severe-15" nonattainment area requirements for the 2008 8-hour ozone NAAQS in the Coachella Valley was submitted as part of the 2016 Air Quality Management Plan (AQMP) to U.S. EPA via CARB on April 27, 2017; and

WHEREAS, as of August 16, 2021, an updated on-road mobile source emissions model estimated higher emissions for the same vehicle classes and traffic activities, resulting in a transportation conformity lockdown impacting billions of dollars' worth of transportation projects. To resolve this conformity lockdown, South Coast AQMD requested that U.S. EPA reclassify Coachella Valley to "extreme" nonattainment, which provided an opportunity to resolve the conformity lockdown; and

WHEREAS, U.S. EPA approved South Coast AQMD's request to reclassify the Coachella Valley to "extreme" nonattainment with a new attainment date of July 20, 2032 and established a deadline of October 7, 2024 for South Coast AQMD to submit a new plan to demonstrate attainment and comply with other planning requirements. An adequacy finding for the updated Motor Vehicle Emissions Budgets (MVEB) was also issued by U.S. EPA, thereby resolving the lockdown; and

WHEREAS, the primary purpose of the Coachella Valley Ozone Plan is to demonstrate attainment of the 2008 8-hour ozone NAAQS by the attainment date and to address "extreme" nonattainment area planning requirements; and

WHEREAS, the Coachella Valley is expected to attain the 2008 8-hour ozone NAAQS with the continued implementation of rules and regulations adopted by South Coast AQMD and CARB. Therefore, no new control measures are proposed in the Coachella Valley Ozone Plan; and

**WHEREAS**, the Draft Coachella Valley Ozone Plan was released for public review and comment on July 31, 2024 with a comment period ending on August 30, 2024; and

**WHEREAS,** a public consultation meeting was held on August 14, 2024 to solicit comments and suggestions from the public, affected businesses, and stakeholders. The meeting was conducted in both English and Spanish; and

WHEREAS, the South Coast AQMD Governing Board has determined that no Socioeconomic Impact Assessment is required under Health and Safety Code Sections 40440.8 and 40728.5, because the Coachella Valley Ozone Plan is not a rule or regulation in the meaning of those statutes, and further no socioeconomic impacts will result from the Coachella Valley Ozone Plan; and

**WHEREAS,** the public hearing has been properly noticed in accordance with all provisions regarding notice of revisions to the SIP in the Code of Federal Regulations Title 40, Part 51, Section 51.102; and

**WHEREAS**, the South Coast AQMD Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the South Coast AQMD specifies the Planning and Rules Manager of the Coachella Valley Ozone Plan as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of the Coachella Valley Ozone Plan is based, which are located at the South Coast AQMD, 21865 Copley Drive, Diamond Bar, California; and

**NOW, THEREFORE BE IT RESOLVED,** that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the Coachella Valley Ozone Plan is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption and CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for the Protection of the Environment. No exceptions to the application of the categorical exemption set forth in CEQA Guidelines Section 15300.2 – Exceptions, apply to the proposed project. This information was presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on the Coachella Valley Ozone Plan; and **BE IT FURTHER RESOLVED,** that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, the Coachella Valley Ozone Plan, as set forth in the attached, and incorporated herein by this reference; and

**BE IT FURTHER RESOLVED,** that staff is hereby directed to forward a copy of this Resolution and the Coachella Valley Ozone Plan to CARB for approval and subsequent submission to U.S. EPA for inclusion in the SIP.

DATE: \_\_\_\_\_

CLERK OF THE BOARDS

### SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

### July October 2024

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Appendix B: SCAG's Transportation Control Measure Reasonably Available Control Measures Analysis

#### Appendix C: Model Performance Evaluation

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**EXECUTIVE SUMMARY** 

## **Executive Summary**

The Coachella Valley is one of the regions under the jurisdiction of the South Coast Air Quality Management District (South Coast AQMD). It is defined as the desert portion of Riverside County in the Salton Sea Air Basin, and includes populated areas such as Palm Springs, Indio, and Mecca. The region fails to meet federal ozone standards due to the transport of air pollution from the greater Los Angeles area. The Coachella Valley was originally classified as "severe-15" nonattainment for the 2008 8-hour National Ambient Air Quality Standard (NAAQS or standard) with an attainment date of July 20, 2027. However, as of August 16, 2021, an updated on-road mobile source emissions model estimated higher emissions for the same vehicle classes and traffic activities. This discrepancy resulted in the emissions associated with motor vehicles no longer being consistent with, or "conforming" to, the requirements of the underlying State Implementation Plan (SIP). This in turn resulted in a transportation conformity lockdown – meaning that no new transportation projects could proceed in the region - impacting billions of dollars' worth of transportation projects. To resolve this conformity lockdown, South Coast AQMD requested that U.S. EPA reclassify the region to "extreme" nonattainment. With this reclassification, the new attainment date for the Coachella Valley is July 20, 2032.<sup>1</sup>

The reclassification necessitated the development of a new plan to comply with the "extreme" nonattainment area planning requirements specified in federal Clean Air Act (CAA) Section 182(e). The Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard (Coachella Valley Ozone Plan or Plan) has been developed to demonstrate attainment of the 2008 8-hour ozone standard by the required deadline of July 20, 2032. The Plan includes an updated emissions inventory and modeling analysis, an evaluation of control strategies and emission reductions needed for attainment, and a demonstration of compliance with other CAA requirements.

The updated inventory and modeling analysis indicate that the Coachella Valley will attain the 2008 8hour ozone standard in 2031 through the continued implementation of rules and regulations adopted by the South Coast AQMD and the California Air Resources Board (CARB). Both agencies pursue innovative approaches to reduce emissions and have recently adopted multiple rules resulting in substantial reductions of nitrogen oxides (NOx) emissions, which is the key pollutant to improve ozone levels in Coachella Valley and the South Coast Air Basin. The reductions from these recently adopted rules, as well as those already reflected in the 2022 Air Quality Management Plan (AQMP) business-asusual condition, are relied upon for attainment. Implementation of the control measures in the 2022 AQMP will provide additional reductions and assurance that the 2008 8-hour ozone standard will be met by 2031, if not earlier, although these reductions are not necessary for attainment. Therefore, no new control measures are proposed in this Plan.

<sup>&</sup>lt;sup>1</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley Ozone Nonattainment Area; Reclassification to Extreme, 88 Fed. Reg. 14291 (March 8, 2023). <u>https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-planning-purposes-california-coachella-valley-ozone</u>

In addition to demonstrating attainment, this Plan also addresses other "extreme" nonattainment area planning requirements under the CAA. Certain requirements have already been implemented since the Coachella Valley is in "extreme" nonattainment for the 1997 8-hour ozone standard. For example, Regulation XIII – New Source Review, Regulation XX – RECLAIM, and Regulation XXX – Title V already reflect the more stringent "extreme" area major stationary source threshold in Coachella Valley. In addition, contingency measures for the 2008 8-hour ozone standard were already addressed through a separate SIP revision adopted by South Coast AQMD in March 2024.<sup>2</sup>

South Coast AQMD intend<u>ed</u>s to conduct a robust public process for this Plan. Following release of the Draft Plan on July 31, 2024, a public consultation meeting <u>will\_was\_be</u>-held on August 14, 2024 to solicit feedback from stakeholders. Meeting materials for the public consultation meeting <u>will\_beere</u> translated to Spanish and the meeting<u>will</u> provide<u>d</u> live Spanish translation. The Plan willasl also be\_discussed at South Coast AQMD's Mobile Source Committee meeting on August 16, 2024, and the Community Steering Committee meeting for the Eastern Coachella Valley, an AB 617 community in the Coachella Valley, on September 5, 2024. Finally, a public hearing will be held on October 4, 2024 (subject to change).

<sup>&</sup>lt;sup>2</sup> South Coast AQMD, Coachella Valley Contingency Measure SIP Revision for the 2008 8-Hour Ozone Standard, March 2024. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/ozone-plans/coachella-valley-</u> <u>contingency-measure-sip-revision/c-final-coachella-valley-contingency-sip-staff-report.pdf?sfvrsn=6</u>

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 1 - INTRODUCTION** 

# Purpose

The Coachella Valley is the eastern portion of the region under the South Coast AQMD jurisdiction, extending from the San Gorgonio Pass to the Salton Sea. The region fails to meet federal ozone standards mostly due to the transport of air pollution from the greater Los Angeles area. It was originally classified as "severe-15" nonattainment for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS or standard) with an attainment date of July 20, 2027. Following a request by South Coast AQMD, the region was reclassified to "extreme" nonattainment with a new attainment date of July 20, 2032.<sup>3</sup> South Coast AQMD voluntarily requested the reclassification to resolve a transportation conformity lockdown impacting billions of dollars' worth of transportation projects. The reclassification triggered the need to develop a State Implementation Plan (SIP) revision to address new requirements associated with the reclassification. The primary purpose of the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard (Coachella Valley Ozone Plan or Plan) is to satisfy the new-"extreme" nonattainment area planning requirements. Specifically, the Coachella Valley Ozone Plan provides the strategy and the underlying technical analysis for how the region will meet the 2008 8-hour ozone standard by the attainment year of 2031.<sup>4</sup>

# Background

Coachella Valley is defined as the desert portion of Riverside County in the Salton Sea Air Basin (SSAB) under the jurisdiction of South Coast AQMD. Coachella Valley excludes the tribal lands which are under the jurisdiction of the U.S. EPA. Coachella Valley is the most populated area in this desert region, which encompasses several communities, including Palm Springs, Desert Hot Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Thermal, and Mecca. Figure 1-1 provides a map of the area and the surrounding topography.

planning-purposes-california-coachella-valley-ozone

<sup>&</sup>lt;sup>3</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley Ozone Nonattainment Area; Reclassification to Extreme, 88 Fed. Reg. 14291 (March 8, 2023). https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-

<sup>&</sup>lt;sup>4</sup> The attainment year ozone season is defined by 40 CFR 51.1300(g) as the ozone season immediately preceding the nonattainment area's attainment date, which is July 20, 2032; therefore, 2031 is the attainment year for the Coachella Valley.

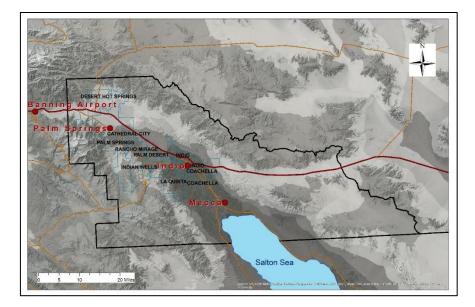


FIGURE 1-1 LOCATION AND TOPOGRAPHY OF COACHELLA VALLEY

The Coachella Valley is located downwind of the South Coast Air Basin, which is also under the jurisdiction of South Coast AQMD. The combination of topography and climate of Southern California makes the South Coast Air Basin an area of high air pollution potential. Ozone levels in the Coachella Valley are impacted by pollutants directly transported from the South Coast Air Basin as well as pollutants formed secondarily through photochemical reactions from precursors emitted upwind. Local pollutants emitted within the Coachella Valley have limited impact on the ozone levels in the Coachella Valley. While local emission controls benefit Coachella Valley air quality, the area must rely on emission controls being implemented upwind to improve air quality and attain the federal ozone standards.

# Attainment Status for Ozone National Ambient Air Quality Standards

The U.S. EPA classifies areas of ozone nonattainment (i.e., Extreme, Severe, Serious, Moderate, or Marginal) based on the extent to which an area exceeds the standard. The higher the classification, the more time is allowed to demonstrate attainment in recognition of the greater challenge to improve ozone air quality. Nonattainment areas with higher classifications are also subject to more stringent requirements. The Coachella Valley is designated by U.S. EPA as a "severe-15" nonattainment area for the 2015 8-hour ozone standard and an "extreme" nonattainment area for both the 1997 and 2008 8-hour ozone standards. South Coast AQMD submitted a request to reclassify the Coachella Valley to "extreme" nonattainment for the 2015 8-hour ozone standard as part of the 2022 Air Quality Management Plan (AQMP), which is pending U.S. EPA's approval. The ozone nonattainment classifications and attainment deadlines are listed in Table 1-1.

TABLE 1-1
ATTAINMENT STATUS OF FEDERAL OZONE AIR QUALITY STANDARDS IN COACHELLA VALLEY

Criteria Pollutant	Averaging Time	Designation (Classification)	Attainment Date
Ozone (O₃)	(1979) 1-Hour (0.12 ppm)	Attainment	11/15/2007 (attained 12/31/2013)
	(1997) 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024^
	(2008) 8-Hour (0.075 ppm)	Nonattainment (Extreme)	7/20/2032
	(2015) 8-Hour (0.070 ppm)	Nonattainment (Severe-15)*	8/3/2032

^South Coast AQMD will-considers requesting U.S. EPA a one-year extension of the attainment date

\*Reclassification request to "extreme" nonattainment submitted as part of the 2022 AQMP

# SIP Revisions for the 1997 and 2015 8-hour Ozone Standards

While the Coachella Valley Ozone Plan only addresses the 2008 8-hour ozone standard, South Coast AQMD has previously submitted SIP revisions to address the 1997 and 2015 8-hour ozone standards. These SIP revisions are summarized below.

#### Extreme Nonattainment Area Plan for the 1997 Ozone Standard

In 2019, the Coachella Valley failed to attain the 1997 8-hour ozone standard by the "severe-15" deadline. Subsequently, South Coast AQMD requested, and U.S. EPA approved, a reclassification to "extreme" nonattainment.<sup>5</sup> The reclassification triggered the need to develop an "extreme" area attainment plan. Adopted in December 2020, the 1997 Extreme Area Plan provided the strategy for the Coachella Valley to attain the 1997 standard by 2023.<sup>6</sup> U.S. EPA recently approved select elements in that plan.<sup>7</sup>

https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-planning-purposes-california-coachella-valley-ozone

https://www.federalregister.gov/documents/2024/06/12/2024-12786/approval-and-promulgation-ofimplementation-plans-state-of-california-coachella-valley-extreme

<sup>&</sup>lt;sup>5</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley 8-Hour Ozone Nonattainment Area; Reclassification to Extreme, 84 Fed. Reg. 32841 (July 10, 2019).

<sup>&</sup>lt;sup>6</sup> South Coast AQMD, Final Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard, December 2020. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/2-final-coachella-valley-extreme-area-plan-for-1997-8-hour-ozone-standard.pdf?sfvrsn=6</u>

<sup>&</sup>lt;sup>7</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, 89 Fed. Reg. 49815 (June 12, 2024).

Preliminary-Qozone monitoring data indicates that the Coachella Valley was close to attainment of the 1997 8-hour ozone standard in 2023. While the three-year design value remains above the standard, the single year 4<sup>th</sup> highest 8-hour ozone maximum daily average (MDA8) was 8<u>3</u>4 ppb in 2023, pending U.S. EPA's approval of an exceptional event demonstration to exclude ozone measurements on two days in 2023 that were impacted by a wildfire. Following approval of the exceptional event demonstration, the 4<sup>th</sup> highest MDA8 will be below the attainment threshold of the 1997 8-hour ozone standard. In this case, Clean Air Act (CAA) Section 181(a)(5) allows South Coast AQMD to request that U.S. EPA grant a one-year extension of the attainment date. South Coast AQMD must also demonstrate that it is complying with approved elements in the applicable SIP to be eligible for the extension. Were U.S. EPA to grant the extension, the new attainment date for the 1997 8-hour ozone standard in Coachella Valley would be June 15, 2025.

#### 2022 AQMP

Adopted in December 2022, the 2022 AQMP provided the strategy for the South Coast Air Basin and Coachella Valley to meet the 2015 8-hour ozone standard by 2037.<sup>8</sup> As part of the 2022 AQMP, South Coast AQMD committed to implement 30 stationary source and 18 mobile source control measures. These measures sought to transition to zero emission technology wherever feasible. While these control measures are not needed for attainment of the 2008 8-hour ozone standard in Coachella Valley, their implementation will further reduce emissions and provide assurance that the standard will be met by 2031. As of July 2024, U.S. EPA has not acted on the 2022 AQMP.

### 2008 8-Hour Ozone Standard SIP Revisions

South Coast AQMD has previously submitted SIP revisions to address planning requirements for the 2008 ozone standard in Coachella Valley. Among the recently adopted SIPs are the Reclassification Request and Reasonable Further Progress (RFP) SIP, and the Contingency Measure SIP. The purpose of these SIPs is summarized below.

#### **Reclassification Request and RFP SIP**

This SIP was adopted by South Coast AQMD in November 2022 to address a transportation conformity lockdown caused by the Motor Vehicle Emissions Budget (MVEB).<sup>9</sup> Under the Clean Air Act, the MVEB is required for each air quality standard for which an area is in nonattainment. The MVEB is the portion of the total allowable emissions allocated to highway and transit vehicles and is defined in the SIP for the

<sup>&</sup>lt;sup>8</sup> South Coast AQMD, 2022 Air Quality Management Plan. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16</u>

<sup>&</sup>lt;sup>9</sup> South Coast AQMD, Request to Reclassify Coachella Valley for the 2008 8-Hour Ozone Standard and the Updated Motor Vehicle Emissions Budgets, November 2022. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plan/cv-mveb/coachella-valley-reclassification-for-the-2008-8-hour-ozone-standard-and-mveb---final-staff-report.pdf?sfvrsn=8</u>

purpose of demonstrating Reasonable Further Progress (RFP) for interim milestone years and the attainment year of the NAAQS.<sup>10</sup> The budget represents the maximum allowable emissions from on-road motor vehicles within a nonattainment area. In 2020, Coachella Valley's MVEB for the 2008 Ozone Standard was approved by U.S. EPA.<sup>11</sup> Since then, an updated on-road mobile source emissions model estimated higher emissions than the approved MVEB for the same vehicular activities. To avoid a transportation conformity lockdown under which no new transportation projects are allowed in the region, reclassification of the Coachella Valley to "extreme" nonattainment was requested to provide an opportunity to update the MVEB. The Reclassification Request and RFP SIP only contained the SIP elements required to update the MVEB including the baseline emissions inventory, RFP demonstration, and the MVEB. South Coast AQMD committed to develop a comprehensive attainment plan for the 2008 8-hour ozone standard to address the remaining "extreme" area SIP elements. Following submission of the Reclassification Request and RFP SIP to U.S. EPA via CARB, an adequacy finding was issued for the MVEB, effective April 12, 2023, thereby resolving the lockdown.<sup>12</sup>

#### **Contingency Measure SIP**

In August 2022, South Coast AQMD, via CARB, withdrew the contingency measure elements that had been submitted as part of the 2016 AQMP as they were no longer approvable by U.S. EPA. As a result of this withdrawal, U.S. EPA finalized a finding of failure to submit contingency measure elements for the 2008 ozone NAAQS in Coachella Valley effective October 31, 2022.<sup>13</sup> The finding established an 18-month deadline for the South Coast AQMD to submit contingency measures or face stationary source permitting sanctions as defined in CAA Section 179(b)(2). In response, South Coast AQMD developed a SIP revision to address the contingency measure elements specified in CAA Sections 172(c)(9) and 182(c)(9) and U.S. EPA's guidance.<sup>14</sup> The SIP revision was adopted by the South Coast AQMD Governing Board in March 2024<sup>15</sup> and

<sup>&</sup>lt;sup>10</sup> Title 40, Code of Federal Regulations (CFR) Part 93 (40 CFR Part 93), Section 93.101. <u>https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-93</u>

<sup>&</sup>lt;sup>11</sup> U.S. EPA, Approval of Air Quality Implementation Plans; California; Coachella Valley; 2008 8-Hour Ozone Nonattainment Area Requirements, 85 Fed. Reg. 57714 (September 16, 2020).

https://www.federalregister.gov/documents/2020/09/16/2020-19162/approval-of-air-quality-implementationplans-california-coachella-valley-2008-8-hour-ozone

<sup>&</sup>lt;sup>12</sup> U.S. EPA, Adequacy Status of Motor Vehicle Emissions Budgets in 2008 8-Hour Ozone Extreme Area and Reasonable Further Progress Plan for Coachella Valley; California, 88 Fed. Reg. 18314 (March 28, 2023). https://www.federalregister.gov/documents/2023/03/28/2023-06344/adequacy-status-of-motor-vehicleemissions-budgets-in-2008-8-hour-ozone-extreme-area-and-reasonable

<sup>&</sup>lt;sup>13</sup> U.S. EPA, Finding of Failure to Submit Contingency Measures for the 2008 8-Hour Ozone NAAQS; Coachella Valley, California, and West Mojave Desert, California, 87 Fed. Reg. 59012 (September 29, 2022). <u>https://www.federalregister.gov/documents/2022/09/29/2022-20874/finding-of-failure-to-submit-contingency-</u> <u>measures-for-the-2008-8-hour-ozone-naags-coachella-valley</u>

<sup>&</sup>lt;sup>14</sup> U.S. EPA, Draft Guidance on the Preparation of State Implementation Plan Provisions that Address the Nonattainment Area Contingency Measure Requirements for Ozone and Particulate Matter, March 17, 2023. https://www.epa.gov/system/files/documents/2023-03/CMTF%202022%20guidance%203-17-23.pdf

<sup>&</sup>lt;sup>15</sup> South Coast AQMD, Coachella Valley Contingency Measure SIP Revision for the 2008 8-Hour Ozone Standard Final Staff Report, March 2024. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/ozone-plans/coachella-valley-contingency-measure-sip-revision/c-final-coachella-valley-contingency-sip-staff-report.pdf?sfvrsn=6</u>

subsequently submitted to US. EPA.<sup>16</sup> The SIP revision includes South Coast AQMD's commitment to address contingency measure provisions in Rule 463, Organic Liquid Storage. It also justifies that there was no other opportunity to develop a contingency measure due to the maturity of South Coast AQMD's rules and the timeline and technological readiness required for a contingency measure. On April 26, 2024, U.S. EPA issued a completeness determination, thereby permanently stopping the sanction clocks.<sup>17</sup>

# Need for the Coachella Valley Ozone Plan

In April 2023, U.S. EPA approved the Reclassification Request and RFP SIP which established a deadline of October 7, 2024 for South Coast AQMD to submit the remaining "extreme" area SIP elements.<sup>18</sup> The Coachella Valley Ozone Plan intends to address those remaining elements, except for the contingency measure elements which were already addressed by the Contingency Measure SIP.

# Format of This Document

This document is organized into 9 chapters, each addressing a specific topic. Each of the chapters is summarized here.

Chapter 1, "Introduction," includes background on the Coachella Valley, the 2008 8-hour ozone standard, and the need for a new attainment plan to address the standard.

Chapter 2, "Air Quality," discusses the Coachella Valley's current air quality in comparison with federal and state health-based air pollution standards and exceptional events.

Chapter 3, "Base and Future Year Emissions," summarizes the emissions inventory, estimates current emissions by source, and projects future emissions.

Chapter 4, "Control Strategy," presents the adopted rules and regulations that reduce emissions to levels needed for attainment of the 2008 8-hour ozone standard.

Chapter 5, "Attainment Demonstration," describes the air quality modeling approach used to demonstrate attainment of the 2008 8-hour ozone standard by 2031.

<sup>&</sup>lt;sup>16</sup> Letter from Dr. Steven Cliff, Executive Officer, CARB to Martha Guzman, Regional Administrator, U.S. EPA Region 9, dated April 3, 2024.

<sup>&</sup>lt;sup>17</sup> Letter from Matthew Lakin, Director, Air and Radiation Division, U.S. EPA Region 9 to Dr. Steven Cliff, Executive Officer, CARB, dated April 26, 2024.

<sup>&</sup>lt;sup>18</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley Ozone Nonattainment Area; Reclassification to Extreme, 88 Fed. Reg. 14291 (March 8, 2023). <u>https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-planning-purposes-california-coachella-valley-ozone</u>

Chapter 6, "Federal Clean Air Act Requirements," discusses other required "extreme" area SIP elements including Reasonably Available Control Measures, the motor vehicle emissions budget, Reasonable Further Progress, and New Source Review.

Chapter 7, "Public Process and Participation," describes South Coast AQMD's public outreach effort associated with development of the Coachella Valley Ozone Plan.

Chapter 8, "California Environmental Quality Act," discusses legal requirements related to CEQA.

Chapter 9, "Staff Recommendation," recommends adoption of the Coachella Valley Ozone Plan.

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 2 – AIR QUALITY** 

# Air Quality Monitoring in the Coachella Valley

South Coast AQMD has historically monitored Coachella Valley ozone concentrations at Indio and Palm Springs. The Palm Springs air monitoring station is located closer to San Gorgonio Pass (also known as Banning Pass), predominantly downwind of the densely populated South Coast Air Basin. Indio is further east in the Coachella Valley, on the downwind side of the most populated areas of the Coachella Valley. Both sites have routinely measured ozone, particulate matter with a diameter less than 10 micron (PM10), particulate matter with a diameter less than 2.5 micron (PM2.5), sulfates (from PM10), and several meteorological parameters. The Palm Springs station also measures carbon monoxide (CO), and nitrogen dioxide (NO2). The Indio station was closed in the spring of 2022 due to issues securing the lease and reopened at a nearby location in January 2024. This chapter provides an overview of how ozone is formed and transported to the Coachella Valley and summarizes historic ozone data from the area.

# Factors that Influence Ozone Concentrations in the Coachella Valley

Ozone is not emitted directly into the atmosphere; ozone is formed by the reaction of volatile organic compounds (VOCs) with oxides of nitrogen (NOx) in the presence of sunlight. In this context, VOCs and NOx are known as ozone precursors. Figure 2-1 illustrates the processes influencing ozone concentrations in the Coachella Valley. NOx is generated from combustion of fossil fuels, whereas VOCs are emitted from a wide variety of sources such as consumer products, mobile sources, vegetation, and combustion. Wildfires generate both NOx and VOCs. The chemical reactions that form ozone are highly complex and depend not only on NOx and VOC levels, but also on the ratio of VOC to NOx concentrations. Meteorological conditions such as temperature (T), relative humidity (RH), the amount of sunlight also influence the chemical formation of ozone. NOx emissions can even reduce ozone concentrations in the immediate vicinity of an emission source but will contribute to ozone formation downwind.

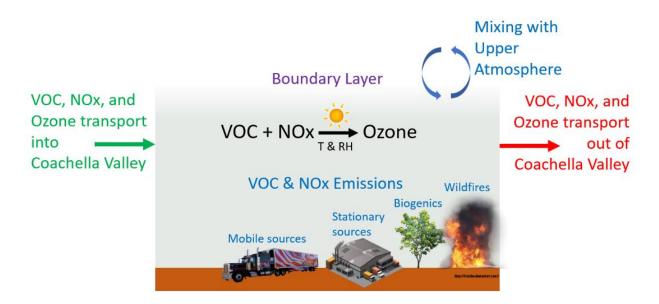
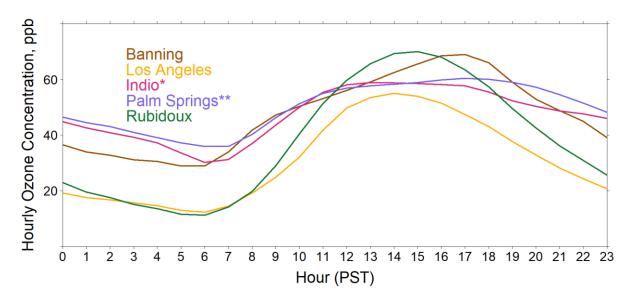


FIGURE 2-1 SCHEMATIC OF PROCESSES INFLUENCING OZONE CONCENTRATIONS IN THE COACHELLA VALLEY

#### Transport from upwind areas and ozone formation

Ozone in the Coachella Valley is both directly transported from the South Coast Air Basin (Basin) and formed photochemically from precursors emitted upwind and within the Coachella Valley. The precursors are emitted in the greatest quantity in the coastal and central Los Angeles County areas of the Basin. The Basin's prevailing sea breeze causes polluted air to be transported inland. As the air is being transported inland, ozone is formed, with peak concentrations occurring in the inland valleys of the Basin, extending from eastern San Fernando Valley through the San Gabriel Valley into the Riverside-San Bernardino area and the adjacent mountains. Ozone and its precursors from these upwind areas mostly enter the Coachella Valley through the San Gorgonio Pass. Ozone levels in the Coachella Valley are therefore mostly due to emissions upwind of the area, with a smaller influence from sources within. As the air is transported further inland into the Coachella Valley through the San Gorgonio Pass, ozone concentrations typically decrease due to dilution, but can remain high enough to exceed ozone standards.

Averaged ozone concentrations by time of day for various stations along the corridor from Los Angeles County into Riverside County and into the Coachella Valley also shows this pollution transport. Figure 2-2 shows averaged 1-hour ozone concentrations for the May–October smog season, by hour, for the 2021– 2023 period. At stations near where most ozone precursors are emitted (source region), ozone peaks occur just after mid-day on average. This peak corresponds to the peak of incoming solar radiation and therefore the peak of ozone production via chemical reactions. Ozone peaks near the emissions source region are not as high as those further downwind, due to the time required for ozone to form. From Los Angeles to Banning, ozone peaks occur later in the day as ozone and ozone precursors are transported downwind and ozone-forming reactions continue. At Palm Springs and Indio, ozone concentrations mostly plateau below the levels measured in Banning, between late morning and early evening. This suggests there is little additional ozone buildup downwind of Banning in the Coachella Valley itself. Any new ozone formed within the Coachella Valley is approximately counter-balanced by enhanced atmospheric dispersion caused by intense daytime heating.



#### FIGURE 2-2 DIURNAL PROFILE OF 3-YEAR (2021–2023) MAY-OCTOBER HOURLY OZONE CONCENTRATIONS ALONG THE TRANSPORT ROUTE INTO THE COACHELLA VALLEY

\* Based on 2021 data only

\*\* Data likely to be approved as exceptional events by U.S. EPA removed from analysis.

Figure 2-3 shows the locations of the monitoring sites mentioned in Figure 2-2.



FIGURE 2-3 LOCATIONS OF OZONE MONITORS FOR WHICH DIURNAL PROFILES ARE SHOWN IN FIGURE 2-2

Palm Springs also shows higher morning ozone concentrations as compared to the concentrations in the morning in the South Coast Air Basin closer to the main emissions source areas (i.e., Los Angeles and Rubidoux). The stations in the Basin have more local NOx emissions (mostly from mobile sources) that titrate ozone during nighttime whereas the Coachella Valley has limited local NOx emissions to titrate the ozone at night.

#### Meteorology and emissions

Ozone concentrations are heavily dependent on meteorological conditions. High ozone concentrations and the number of days exceeding the federal ozone standards are greatest in the late spring and summer months, with no exceedances during the winter in the Coachella Valley. Ozone concentrations are a strong function of season for several reasons. First, the rate of the reactions that produce ozone in the atmosphere proceeds faster at higher temperatures. Second, elevated temperatures lead to increased precursor concentrations – the chemicals that react together to form ozone – by hastening the evaporation of VOCs into the air. Third, ozone concentrations are also dependent on sunlight intensity and duration, which are stronger during the summer months. Finally, the stability of the atmosphere also influences ozone concentrations as strong inversions limit mixing with the upper atmosphere, leading to elevated concentrations at the surface.

Year-to-year changes in meteorology can alter transport patterns, leading to changes in precursors and upwind ozone entering the Coachella Valley. Elevated temperatures and reduced atmospheric mixing can also contribute to additional ozone formation. In addition, the North American Monsoon, which can increase humidity and afternoon thunderstorms in the Coachella Valley between July and September can affect ozone concentrations.

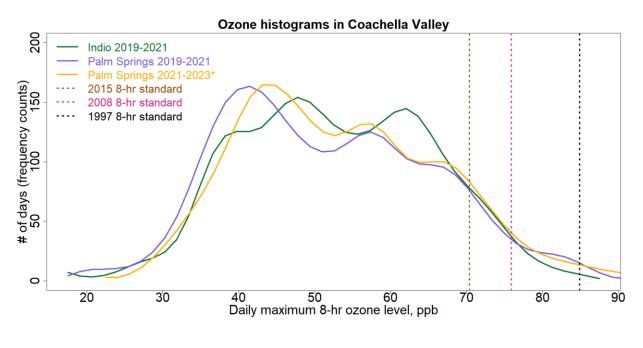
Biogenic VOC emissions (those emitting from vegetation) may also exhibit large year-to-year variations. Vegetation is a large source of VOCs, especially during summer months. Vegetative growth is highly dependent on rainfall during the growing season, which exhibits significant year-to-year variations throughout California. High temperatures during summer months promotes higher amount of biogenic VOC emissions and consequently more ozone.

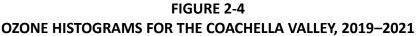
While it is difficult to measure anthropogenic emissions (emissions from human activity) of NOx and VOCs directly, South Coast AQMD's emissions inventory included in the recent Air Quality Management Plans indicates that emissions from anthropogenic sources in the South Coast Air Basin have declined and will continue to decline.

# **Ozone Monitoring Data**

Figure 2-4 shows that Palm Springs exceeds the 1997, 2008, and 2015 8-hr ozone standards more frequently than Indio. This is consistent with Palm Springs being closer to source areas. Note that since the Indio site did not operate in the ozone seasons of 2022 and 2023, the last available 3-year period (2019-2021) for both sites are shown, as is the latest 3-year period for Palm Springs (2021-2023). The

distribution of ozone levels at higher concentrations at Palm Springs did not change significantly between 2019-2021 and 2021-2023.

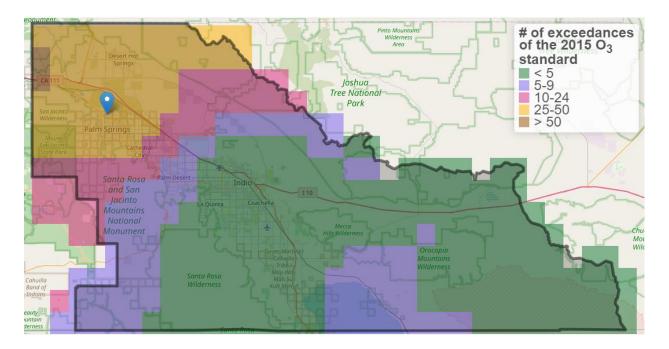




\* Data likely to be approved as exceptional events by U.S. EPA removed from analysis.

South Coast AQMD's real-time AQI map<sup>19</sup> helps visualize how pollutant levels vary spatially using regulatory measurements at South Coast AQMD monitoring sites, low-cost sensor data (PM2.5 only) and predictions from a chemical transport model (ozone and PM2.5). Hourly AQI map archives from May – October 2021- 2023 were analyzed to determine the number of exceedances, after removing data likely to be approved as exceptional events by U.S. EPA. Figure 2-5 confirms the decreasing northwest-to-south/southeast gradient across the valley, as one moves farther from the main source region. The slight increase in the number of exceedances over the Salton Sea area is likely an artifact of interpolating the modeled concentrations due to the absence of Indio data in 2023: the spatial interpolation is still influenced somewhat by the higher concentrations at Palm Springs. If lower concentrations were measured in Indio as in past years, the interpolated surface would have been "anchored" down lower closer to the Salton Sea.

<sup>&</sup>lt;sup>19</sup> Schulte, N., Li, X., Ghosh, J. K., Fine, P. M., & Epstein, S. A. (2020). Responsive high-resolution air quality index mapping using model, regulatory monitor, and sensor data in real-time. *Environmental Research Letters*, *15*(10), 1040a7.



#### FIGURE 2-5 NUMBER OF TIMES THE MAXIMUM DAILY 8-HR AVERAGE (MDA8) OZONE IN 2023 WITHIN THE COACHELLA VALLEY EXCEEDED 0.07 PPM (2015 8-HR STANDARD).

Note: The location of the Palm Springs monitor and the boundary of South Coast AQMD's Source-Receptor Area #30 are also shown in Figure 2-5.

# **Ozone Attainment Status**

Design values are statistical metrics that are used to compare pollutant concentrations with the NAAQS. Trends in the 8-hour ozone design value and the 1-hour ozone design value are plotted in Figure 2-6. The year plotted is the end year of the 3-year design value. Data likely to be approved as exceptional events by U.S. EPA have been removed.

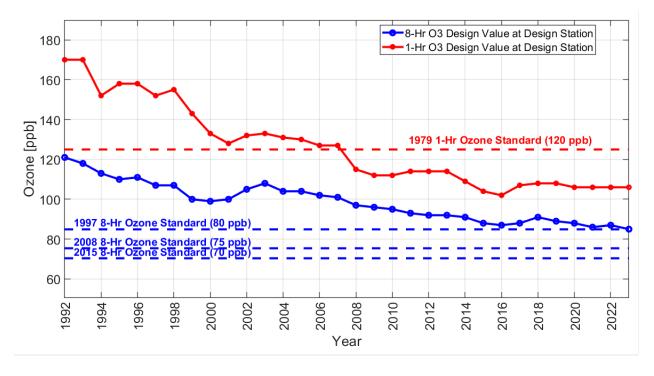


FIGURE 2-6 COACHELLA VALLEY 3-YEAR DESIGN VALUE TRENDS OF OZONE, 1992–2023

While the Coachella Valley attains the former 1-hour federal ozone standard, the area exceeds the 8-hour NAAQS. In each year, the Palm Springs monitoring station had the highest design value in the Coachella Valley, and therefore the Palm Springs measurement data reflects the design site for the Coachella Valley. The least-stringent 1997 8-hour standard is met if the design value is less than or equal to 0.084 ppm (84 ppb), due to rounding conventions associated with the 2008 standard of 0.08 ppm. As of June August 2024, an Exceptional Events Demonstration is under development for Palm Springs ozone data collected on July 14- 15, 2023, as these data were unduly influenced by wildfire smoke. If EPA concurs with this demonstration, the 2023 design value<sup>20</sup> which covers measurements from 2021 to 2023 will be 0.085 ppm, which is just 1 ppb over the standard. The 4<sup>th</sup> highest 2023 8-hour ozone value will be 0.08<u>3</u>4 ppm which is below the level of the standard. Ozone design values in the Coachella Valley are expected to continue to decrease because of emission reductions in the South Coast Air Basin and Coachella Valley.<sup>21</sup>

In summary, the Coachella Valley has experienced a multi-decadal trend of steady ozone improvements over the years, however, additional improvements are needed to achieve the 8-hour ozone standards. Due to ozone transport patterns and chemistry, this goal is inextricably linked to ozone reductions in the South Coast Air Basin.

<sup>&</sup>lt;sup>20</sup> The design value is the average of the 4<sup>th</sup> highest 8-hour ozone values in a three-year period.

<sup>&</sup>lt;sup>21</sup> South Coast AQMD, 2022 Air Quality Management Plan. <u>https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan</u>

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 3 – BASE AND FUTURE YEAR EMISSIONS** 

## **Base and Future Year Emissions**

# Introduction

This chapter summarizes ozone precursor emissions (VOC and NOx) in the Coachella Valley for the 2018 base year and the 2031 attainment year for the 2008 8-hour ozone NAAQS of 75 ppb. Projected emissions inventories of air pollutants in future milestone and attainment year presented in this chapter are based on seasonally adjusted summer planning inventory emissions which are developed to capture the emission levels during the high ozone season and are used to perform the ozone modeling attainment demonstration and to report emission reduction progress as required by the federal CAA requirements.

# **Emissions Inventory Methodology**

The emissions inventory is divided into two major source classifications: stationary and mobile sources. Stationary sources include point sources and area sources. Mobile sources include off- and on-road sources. Emissions from each category are estimated using source-specific methodologies described briefly in the next sections. The methodologies used in this Plan are identical to those employed in South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard (hereafter PM2.5 Plan)<sup>22</sup> and generally consistent with those employed in the Reclassification of Coachella Valley for the 2008 8-Hour Ozone Standard and Updated Motor Vehicle Emissions Budgets (hereafter RFP Plan)<sup>23</sup> adopted in November 2022, except for the on-road sources which are based on EMFAC2021. The 2022 AQMP and the RFP Plan used EMFAC2017, which was the latest U.S. EPA approved on-road mobile source emissions model during the development of those Plans. While more detailed information regarding the emissions inventory development for the base and future years is available in the 2022 Air Quality Management Plan (AQMP)<sup>24</sup> for sources other than on-road category, and the PM2.5 Plan for on-road sources, a brief description for the four groups of emissions is provided below.

#### **Stationary Sources**

Stationary sources are divided into two major subcategories: point sources and area sources. Point sources are permitted facilities with one or more emission sources at an identified location (e.g., power plants, refineries). These facilities generally have annual emissions of 4 tons or more of either VOCs, NOx, SOx, or

<sup>&</sup>lt;sup>22</sup> South Coast AQMD, South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard, June 2024. <u>https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-(sip)-revisions/2012-annual-pm2-5-plan</u>

<sup>&</sup>lt;sup>23</sup> South Coast AQMD, Request to Reclassify Coachella Valley for the 2008 8-Hour Ozone Standard and the Updated Motor Vehicle Emissions Budgets Final Staff Report, November 2022. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/cv-mveb/coachella-valley-reclassification-for-the-2008-8-hour-ozone-standard-and-mveb---final-staff-report.pdf</u>

<sup>&</sup>lt;sup>24</sup> South Coast AQMD, 2022 Air Quality Management Plan. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf</u>

PM, or annual emissions of over 100 tons of CO. If any of these thresholds are exceeded, facilities are required to report their emissions of criteria pollutants and selected air toxics pursuant to Rule 301 to the South Coast AQMD on an annual basis through the Annual Emissions Reporting (AER) system. Their report is subject to audit. The 2018 annual reported emissions are used for stationary point sources. The point source inventory includes a large facility – the Desert View Power Plant – that is permitted by the South Coast AQMD even though is on tribal land. Per its permit, this facility is subject to rule 301 and AER reporting and was operating in 2018. However, the plant shut down operations in May 2024, and thus, future stationary source emissions may be overestimated.

Area sources consist of many small emission sources (e.g., residential water heaters, architectural coatings, consumer products, and permitted sources that emit pollutants lower than the above thresholds) which are distributed across the region and are not required to individually report their annual emissions. There are about 400 area source categories for which emission estimates are jointly developed by CARB and the South Coast AQMD. The emissions from these sources are estimated using latest specific activity information and emission factors. Activity data are usually obtained from survey data or scientific reports, e.g., Energy Information Administration (EIA) reports for fuel consumption other than natural gas fuel, Southern California Gas Company for natural gas consumption, and solvent, sealant and architectural coatings sales reports required under the South Coast AQMD Rules 314, 1113 and 1168. Emission factors are based on rule compliance factors, source tests, manufacturer's product or technical specification data, default factors (mostly from AP-42, U.S. EPA's published emission factor compilation), or weighted emission factors derived from the point source facilities' annual emissions reports. The overall methodology for area sources is described in Appendix III of the PM2.5 Plan. The area source emissions in this Plan are based on the emissions projections included in the PM2.5 Plan for 2018 and 2031, using growth and control factors derived from regulatory and socio-economic data.

#### **On-Road Sources**

On-road sources include motor vehicles such as passenger cars, buses, and trucks that regularly travel on roads. On-road vehicle emissions were calculated with emission rates from CARB's EMFAC2021 model and travel activity data from Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the latest federally approved RTP. The U.S. EPA approved the EMFAC2021 emissions model for SIP and conformity purposes in November 2022.<sup>25</sup> The latest two plans – the 2022 AQMP and the RFP Plan relied on EMFAC2017, the predecessor to the EMFAC2021, to estimate on-road mobile source emissions. EMFAC2021 calculates exhaust and evaporative emission rates by vehicle type for different vehicle speeds and environmental conditions. Temperature and humidity profiles are used to produce monthly, annual, and episodic inventories. Emission rate data in EMFAC2021 is collected from various sources, such as individual vehicles in a laboratory setting, tunnel studies, and certification data.

 <sup>&</sup>lt;sup>25</sup> U.S. EPA, Official Release of EMFAC2021 Motor Vehicle Emission Factor Model for Use in the State of California, 87
 Fed. Reg. 68483 (November 15, 2022). <a href="https://www.federalregister.gov/documents/2022/11/15/2022-24790/official-release-of-emfac2021-motor-vehicle-emission-factor-model-for-use-in-the-state-of-california">https://www.federalregister.gov/documents/2022/11/15/2022-24790/official-release-of-emfac2021-motor-vehicle-emission-factor-model-for-use-in-the-state-of-california</a>

The updates in vehicle population, emission factors, and forecasting parameters included in EMFAC2021 affect the on-road emission estimates for both the 2018 base year and future years. The factors that have the greatest effect on emissions changes from EMFAC2017 to EMFAC2021 include the increase inhigher in-use emission factors for some vehicle classes in EMFAC2021, the updated vehicle age distribution for medium-heavy duty trucks that estimates an older fleet mix compared to EMFAC2017, and the update on brake wear emission factors based on updated measurements. In addition, the EMFAC2021 model incorporates recently adopted regulations, such as Advanced Clean Trucks (ACT),<sup>26</sup> and Heavy-Duty Low NOx Omnibus regulations,<sup>27</sup> not included in EMFAC2017.

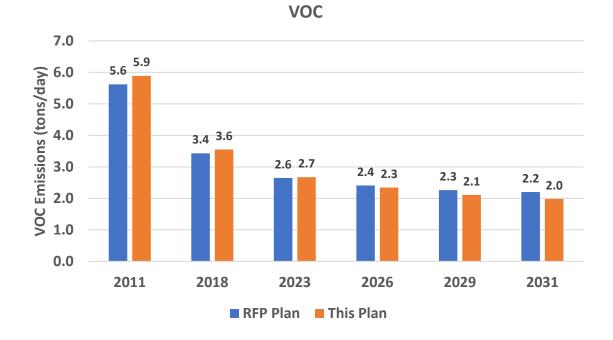
Figure 3-1 compares VOC (top) and NOx (bottom) emissions from on-road sources between the RFP Plan and this Plan for 2011 (the RFP base year), 2018 (the base year to project emissions from), interim milestone years of 2023, 2026, and 2029, and the attainment year of 2031. The two main differences in the on-road inventory between the two plans are:

- 1) On-road emissions in the RFP Plan are estimated using EMFAC2017, whereas on-road emissions in this Plan are estimated using EMFAC2021.
- 2) The RFP Plan used EMFAC2017 as on-road baseline emissions, which did not reflect the impact of ACT, Heavy-Duty Low NOx Omnibus, or Heavy-Duty Inspection and Maintenance (I/M). This Plan uses EMFAC2021, which incorporates the impact of ACT and Omnibus regulation. In addition, the impact of Heavy-Duty I/M is incorporated as an external adjustment to EMFAC2021 and reflected in the baseline emissions.

For year 2018, the inventory of this Plan estimates higher emissions of NOx and VOC than those in the RFP Plan, because EMFAC2021 includes newer vehicle test data showing that light-duty vehicles have higher exhaust emissions, and updated vehicle registration data from the Department of Motor Vehicles (DMV) for 2018 indicating that medium heavy-duty trucks are older than what was assumed in EMFAC2017. For years after 2023, this Plan's inventory projects significantly lower VOC and NOx emissions than the RFP Plan, largely due to the implementation of recently adopted regulations and programs such as ACT, Heavy-Duty Omnibus low NOx requirements and Heavy-Duty I/M. Despite growth in vehicular activities, emissions from on-road mobile sources are expected to decrease in future years. Vehicle emissions under this Plan are projected to decline from 2018 to 2031 by 44 and 76 percent for VOC and NOx emissions, respectively.

<sup>&</sup>lt;sup>26</sup> CARB Advanced Clean Trucks Regulation. <u>https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks</u>.

<sup>&</sup>lt;sup>27</sup> CARB Heavy-Duty Low NOx Omnibus Regulations. <u>https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox</u>.



NOx

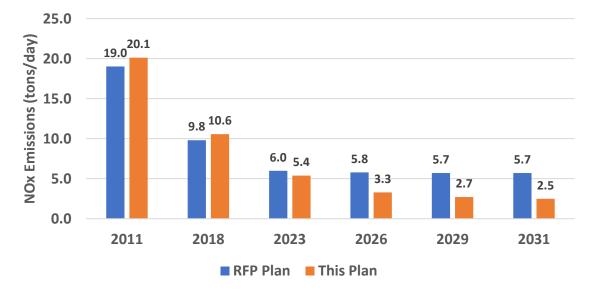


FIGURE 3-1 COMPARISON OF VOC EMISSIONS (TOP) AND NOX EMISSIONS (BOTTOM) FROM ON-ROAD SOURCES INCLUDED IN THE RFP PLAN AND THIS PLAN.

#### **Off-Road Sources**

The off-road mobile category includes construction and mining equipment, industrial and commercial equipment, lawn and garden equipment, agricultural equipment, ocean-going vessels, commercial harbor craft, locomotives, aircraft, cargo handling equipment, pleasure craft, and recreational vehicles.

Emissions from off-road vehicle categories are primarily based on estimated activity levels and emission factors using a suite of category-specific models which are integrated under the OFFROAD2021 platform. For some categories for which a new model was not available, emissions are based on the OFFROAD2007 model. Separate models have been developed for estimating emissions from different categories of off-road mobile sources.<sup>28</sup>

There are two updates to this Plan's off-road emissions compared to the RFP Plan. After the development of the RFP Plan, a minor error was discovered in the emission allocations for in-use emissions from off-road construction equipment in Riverside County. This error only affected future year emissions and is now corrected in this Plan. Additionally, this Plan accounts for the impact of the Small Off-Road Engine (SORE) regulation amendments,<sup>29</sup> which was not included in the RFP Plan. Implementation of the SORE regulation results in a reduction of 0.8 tons per day of VOC and 0.1 tons per day of NOx in the Coachella Valley. As a result of these updates, VOC and NOx emissions decrease from 3.1 and 6.8 tons per day in the RFP Plan to 2.1 and 6.1 tons per day in this Plan in 2031, respectively.

Recreational boat emissions are estimated at the county level and allocated to Coachella Valley using spatial surrogates based on water bodies; however, there is no significant boating activity in the Salton Sea, suggesting that the emissions estimates for this area are likely overestimated. A new model for this off-road category is currently under development and estimates of emissions from recreational boats <u>are will-likely to decrease in the future update</u>.

# **Base Year Emission Inventory**

The summer planning emissions inventory for 2011, the base year for the RFP Plan, and for 2018, the base year for this Plan, broken down by major source category are provided in Table 3-1. A more detailed emissions is included in Appendix I.

<sup>&</sup>lt;sup>28</sup> More information on the models for offroad sources can be found in the following link: <u>https://ww2.arb.ca.gov/msei-road-documentation.</u>

<sup>&</sup>lt;sup>29</sup> CARB 2021 Amendments to the Small Off-Road Engine (SORE) Regulations. <u>https://ww2.arb.ca.gov/our-work/programs/small-off-road-engines-sore</u>

TABLE 3-1
SUMMARY OF VOC AND NOX EMISSIONS BY MAJOR SOURCE CATEGORY: 2018 BASE YEAR

Source Category	Summer Planning 2018 (tons/day)			
	VOC	NOX		
STATIONARY SOURCES				
Fuel Combustion	0.09	1.08		
Waste Disposal	0.01	0.01		
Cleaning and Surface Coatings	1.74	0.00		
Petroleum Production and Marketing	0.33	0.00		
Industrial Processes	0.24	0.00		
Solvent Evaporation				
Consumer Products	3.04	0.00		
Architectural Coatings and Related Process Solvents	0.30	0.00		
Pesticides/Fertilizers	0.22	0.00		
Asphalt Paving / Roofing	0.06	0.00		
Miscellaneous Processes	0.21	0.29		
Total stationary point and area sources	6.25	1.38		
MOBILE SOURCES				
On-Road Motor Vehicles	3.55	10.54		
Other Mobile Sources	3.65	7.74		
Total Mobile Sources	7.21	18.28		
TOTAL ANTHROPOGENIC SOURCES				
Grand Total	13.46	19.66		

Figure 3-2 characterizes the relative contributions by stationary and mobile source categories in the base year 2018. On-road and off-road mobile sources are major contributors to NOx and VOC emissions in the Coachella Valley. Overall, total mobile source emissions account for 54 percent of the VOC and 93 percent of the NOx emissions. The on-road mobile source category alone contributes over 26 percent of the VOC and 54 percent of the NOx emissions. Stationary sources contribute to 46 percent of the VOC emissions, with consumer products and cleaning and surface coatings being the major sources.

Figure 3-3 shows the fraction of the 2018 inventory by responsible agency for VOC and NOx. U.S. EPA and CARB have primary authority to regulate emissions from mobile sources. The U.S. EPA's authority primarily applies to aircraft, locomotives, ocean-going vessels, and some categories of off-road mobile equipment. CARB has authority over the remainder of the mobile sources, and consumer products. South Coast AQMD has authority over most area sources and all point sources. As can be seen in Figure 3-3, 92 percent of the NOx emissions in the Coachella Valley are from sources that fall under the primary jurisdiction of CARB and the U.S. EPA. The largest share of VOC emissions is under CARB jurisdiction, 72 percent, with a small contribution of VOC from sources under the U.S. EPA's jurisdiction. This illustrates that continued actions

at the local, state, and federal level are all needed to ensure the region attains the federal ambient air quality standards.

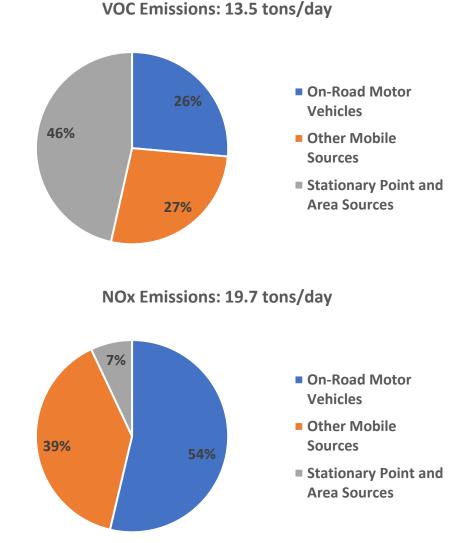
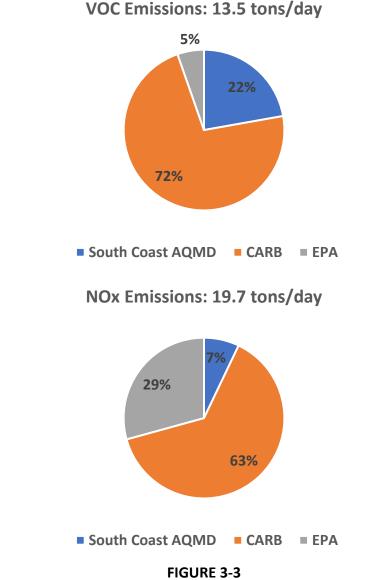


FIGURE 3-2 RELATIVE CONTRIBUTION BY SOURCE CATEGORY TO 2018 PLANNING EMISSION INVENTORY (VALUES ARE ROUNDED TO NEAREST INTEGER AND MAY NOT SUM DUE TO ROUNDING)



<sup>2018</sup> PLANNING EMISSION INVENTORY AGENCY PRIMARY RESPONSIBILITY (VALUES ARE ROUNDED TO NEAREST INTEGER AND MAY NOT SUM DUE TO ROUNDING)

### **Future Emissions**

Future emissions forecasts are primarily based on demographic and economic growth projections provided by SCAG as well as the energy consumption projections by the Southern California Gas Company (SoCalGas). In addition, projections in this Plan account for the exact same regulations that were included in the 2022 AQMP. The inventory of the 2022 AQMP reflects anticipated reductions from South Coast AQMD's regulations amended or adopted by October 2020, Rule 1109.1 adopted in November 2021, and CARB regulations adopted by December 2021, which include Heavy-Duty I/M and SORE regulations. Since

3-8

the development of the 2022 AQMP emissions inventory, the South Coast AQMD adopted multiple rules: Rules 1111, 1147, 1147.1, 1147.2, 1150.3, 1153.1, 1168, and 1179.1. While these newly adopted rules have quantified NOx reductions of 0.39 tons per day in the South Coast Air Basin, the impact is less than 0.01 tons per day in the Coachella Valley. Additional discussion on rules adopted after the specified target date is included in the next section.

Table 3-2 presents the summer planning inventory of ozone precursors in 2031, the attainment year of the 2008 8-hour ozone NAAQS of 75 ppb for the Coachella Valley. A more detailed emissions inventory by major source categories is included in Appendix I. NOx emissions continue to decrease due to existing regulations for mobile and stationary sources. However, the total VOC emissions in Coachella Valley are expected to slightly increase due to increase in population and economic and selected industrial activities, such as from degreasing, coatings and related process solvents, chemical industry and food and agriculture. Emissions from on-road and off-road sources are projected to decline for both NOx and VOC from 2018 to 2031 due to continued implementation of adopted regulations which require new, cleaner vehicles and equipment to replace older, higher-emitting vehicles.

#### TABLE 3-2 SUMMARY OF EMISSIONS OF VOC AND NOX BY MAJOR SOURCE CATEGORY: 2031 BASELINE SUMMER PLANNING (TONS PER DAY)

Source Category	Summer Planning (tons/day)		
	VOC	NOX	
STATIONARY SOURCES			
Fuel Combustion	0.10	1.10	
Waste Disposal	0.02	0.01	
Cleaning and Surface Coatings	2.17	0.00	
Petroleum Production and Marketing	0.32	0.00	
Industrial Processes	0.29	0.00	
Solvent Evaporation			
Consumer Products	3.79	0.00	
Architectural Coatings and Related Process Solvents	0.40	0.00	
Pesticides/Fertilizers	0.22	0.00	
Asphalt Paving / Roofing	0.08	0.00	
Miscellaneous Processes	0.21	0.28	
Total stationary point and area sources	7.60	1.39	
MOBILE SOURCES			
On-Road Motor Vehicles	1.98	2.47	
Other Mobile Sources	2.21	6.74	
Total Mobile Sources	4.19	9.22	
TOTAL ANTHROPOGENIC SOURCES			
Grand Total	11.79	10.61	

Figure 3-4 illustrates the relative contribution to the 2031 inventory by source category. The contribution of on-road mobile sources to ozone precursor emissions in 2031 is projected to decline with respect to 2018, indicating the effectiveness of current on-road mobile sources regulations to reduce emissions in the Coachella Valley. Conversely, the relative contribution of stationary sources to the VOC emissions is expected to grow due to increasing use of consumer products. Off-road mobile sources' <u>relative</u> contribution will grow in 2031. Among them, locomotives have the largest amount of NOx emissions.

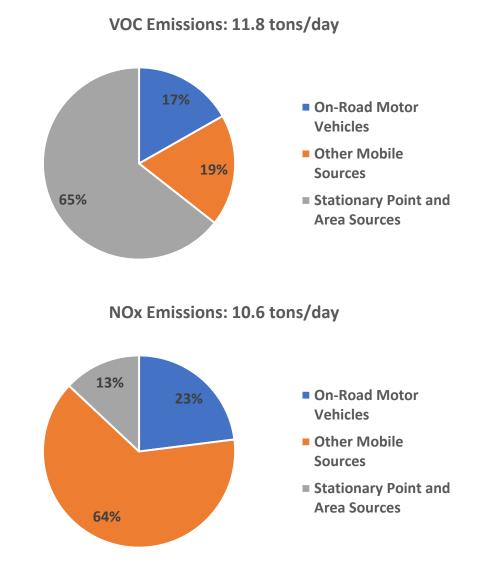


FIGURE 3-4 RELATIVE CONTRIBUTION BY SOURCE CATEGORY TO 2031 PLANNING EMISSION INVENTORY (VALUES ARE ROUNDED TO NEAREST INTEGER AND MAY NOT SUM DUE TO ROUNDING) Figure 3-5 shows the comparison of the summer planning inventory in 2018 and 2031 by the three major source categories. Emissions from mobile sources are projected to decline from 2018 to 2031 for both VOC and NOx, with the steepest decreases in NOx from on-road sources. Emissions of NOx from stationary sources are projected to remain unchanged through 2031, whereas VOC emissions are projected to grow mostly contributed by the increase in the use of consumer products driven by the growth in population.

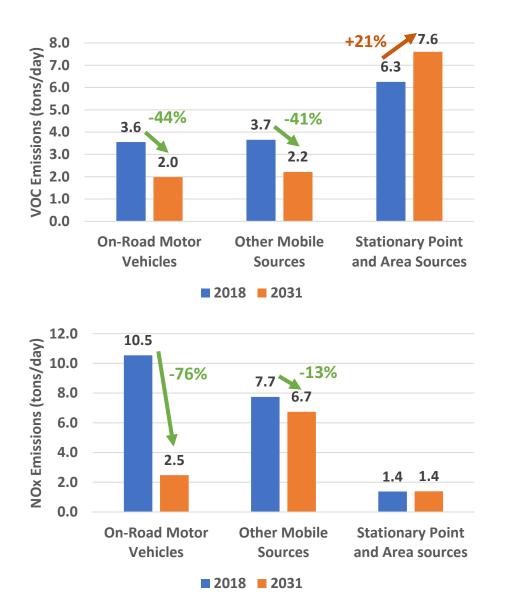


FIGURE 3-5 COMPARISON OF NOX AND VOC PLANNING EMISSION INVENTORY IN YEAR 2018 AND 2031 BY MAJOR SOURCE CATEGORY

## **Recently Adopted Rules and Regulations**

As mentioned above, this Plan incorporates in the baseline projections the same rules that were included in the 2022 AQMP, which include South Coast AQMD rules adopted by October 2020 with the addition of Rule 1109.1 and CARB rules adopted by December 2021. However, by September 2023, South Coast AQMD adopted multiple new rules that target apply to sources in the South Coast Air Basin and the Coachella Valley. The NOx emission reductions from these rules in the Coachella Valley are less than 0.01 tons per day, but the reductions in the South Coast Air Basin are 0.39 tons per day. In addition, South Coast AQMD developed eleven "landing" rules to transition the REgional CLean Air Incentives Market (RECLAIM) program to a traditional command-and-control structure. While these "landing" rules did not apply to RECLAIM sources in the Coachella Valley, they contribute to a reduction of NOx of 2.88 tons per day in the South Coast Air Basin in 2031. All these reductions are included in the attainment scenario for 2031. Additional information on the newly adopted rules and RECLAIM landing rules reductions are described in greater detail in Chapter 3 of the PM2.5 Plan.

Similarly, CARB adopted new regulations after the development of the 2022 AQMP, and while these newly adopted regulations are not included in the baseline 2031, their associated reductions are accounted for in the attainment strategy in this Plan. The overall reductions in ozone precursors from these regulations in the Coachella Valley and the South Coast Air Basin are summarized in Table 3-3.

	Coachella Valley Reductions (tons per day)		South Coast Air Basin Reductions (tons per day)	
	NOx	VOC	NOx	VOC
Measures	Reduction	Reduction	Reduction	Reduction
Rules adopted after the development of the 2022 AQMP	0.01	-	0.39	-0.14
RECLAIM landing rules	-	-	2.88	-
Total South Coast AQMD adjustments	0.01	-	3.27	-0.14
Advanced Clean Cars II	0.06	0.06	1.79	1.59
Clean Miles Standard	0.00	0.00	0.03	0.07
EPA Clean Trucks Plan	0.14	-	0.76	-
Advanced Clean Fleets Regulation	0.34	0.02	4.37	0.2
Total CARB/EPA on-road measures	0.55	0.08	6.96	1.86
Commercial Harbor Craft Amendments	-	-	2.34	0.17
In-Use Locomotive Regulation	2.73	0.11	10.71	0.33
Transport Refrigeration Unit Regulation Part 1	0.00	0.02	0.39	0.05
Amendments to the In-Use Off-Road Diesel- Fueled Fleets Regulation	0.13	0.01	1.72	0.19
Total CARB off-road measures	2.86	0.15	15.15	0.74
Grand Total Reductions	3.42	0.22	25.39	2.47

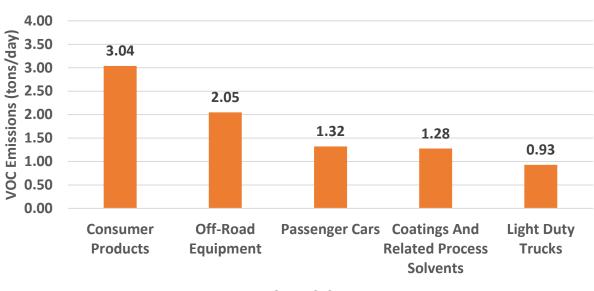
### TABLE 3-3 SUMMARY OF EMISSION REDUCTIONS FROM REGULATIONS ADOPTED SINCE THE DEVELOPMENT OF THE 2022 AQMP

## Top Five Source Categories (2018 and 2031)

The top five sources of ozone precursor emissions are presented in this section based on the summer planning inventory for the base year 2018 and the future attainment year 2031.

Figure 3-6 and Figure 3-7 provide the top five categories for VOCs for the years 2018 and 2031, respectively. Consumer products, off-road equipment, passenger cars, and coating and related processes are the largest contributors to VOC emissions. Consumer products, and coating and related processes are expected to continue to grow through 2031, due to the projected growth in population and economic activity. In contrast, on-road emissions from mobile sources including passenger cars decline from 2018 to 2031 as a result of regulations. The top five categories account for 64 percent of the total VOC inventory in 2018 and 66 percent in 2031.

Figure 3-8 and Figure 3-9 show the top five categories for NOx emissions for 2018 and 2031, respectively. Mobile source categories remain the predominant contributor to NOx emissions. Heavy heavy-duty diesel trucks, trains, and off-road equipment are on the list of top five emitters in 2018 and 2031. Emissions of NOx from heavy-duty trucks and off-road equipment are projected to decline from 2018 to 2031. NOx emissions from trains in the baseline inventory are projected to grow through 2031. Similarly, emissions from aircraft – which is also a primarily federally regulated source like trains – is projected to grow through 2031, and appears in the top 5 emitters in 2031. Because medium-heavy duty and light duty trucks become cleaner in future years, NOx emissions from electricity generation emerge among the top five emitters in 2031 in Coachella Valley. Notably, a third of the NOx emissions from electric utilities are part of the ex-RECLAIM universe. Together, these top five categories account for 76 percent of the total NOx inventory in 2018 and 77 percent in 2031.



2018

FIGURE 3-6 TOP FIVE EMITTER CATEGORIES FOR VOC IN 2018

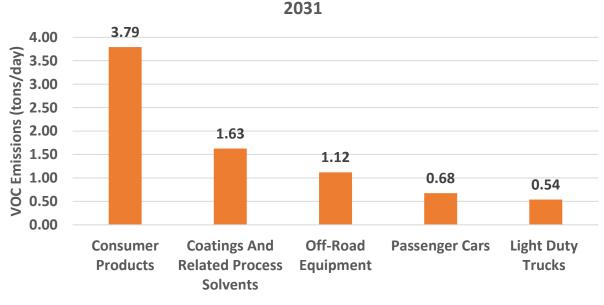
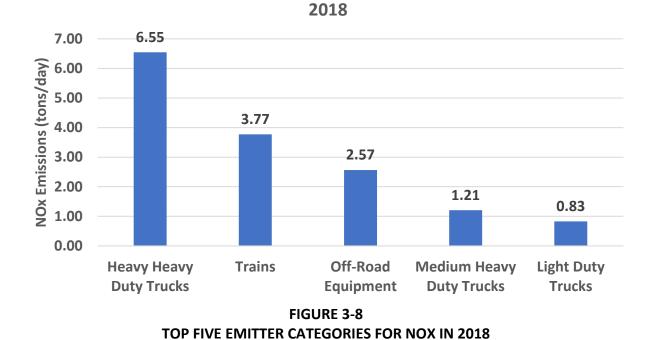


FIGURE 3-7 TOP FIVE EMITTER CATEGORIES FOR VOC IN 2031



2031

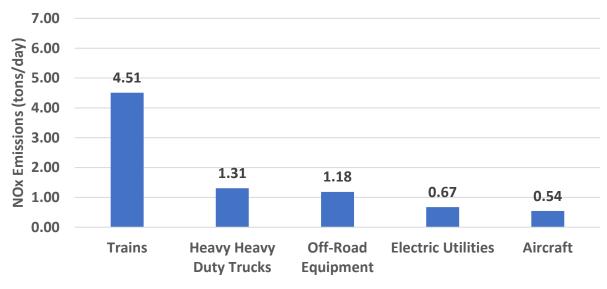


FIGURE 3-9 TOP FIVE EMITTER CATEGORIES FOR NOX IN 2031

## Emissions of the South Coast Air Basin

While a full inventory of Coachella Valley emissions is a required element of this Plan, the ozone air quality in the Coachella Valley is primarily due to the transport of ozone and its precursor pollutants from the South Coast Air Basin. Table 3-4 presents the total VOC and NOx emissions in the South Coast Air Basin compared to the emissions in the Coachella Valley for 2018. Table 3-5 presents the emissions in the baseline emissions inventory for 2031, and Table 3-6 presents the emissions in 2031 resulting from applying the line item adjustments presented in Table 3-3. The Basin emissions are estimated based on the same methodology presented above. As shown, in both years, the total VOC emissions emitted locally within the Coachella Valley are about 3 percent of the total VOC emissions in the South Coast Air Basin. The emissions of NOx emitted in the Coachella Valley represent 5 percent of the emissions in the South Coast Air Basin. The Basin in 2018 and in the baseline 2031, and 4 percent in the year 2031 with the line item adjustments.

### TABLE 3-4 2018 SUMMER PLANNING VOC AND NOX EMISSIONS FOR SOUTH COAST AIR BASIN AND COACHELLA VALLEY (TONS PER DAY)

	South Coast Air Basin		Coachella Valley	
	VOC	NOx	VOC	NOx
Stationary Point and Area Sources	217.83	51.61	6.25	1.38
On-Road Motor Vehicles	95.87	171.28	3.55	10.54
Other Mobile Sources	107.16	143.35	3.65	7.74
Total Anthropogenic Sources	420.87	366.23	13.46	19.66

#### TABLE 3-5

### 2031 SUMMER PLANNING VOC AND NOX EMISSIONS FOR SOUTH COAST AIR BASIN AND COACHELLA VALLEY (TONS PER DAY) IN THE BASELINE

	South Coast Air Basin		Coachella Valley	
	VOC	NOx	VOC	NOx
Stationary Point and Area Sources	238.83	42.32	7.60	1.39
On-Road Motor Vehicles	47.31	43.38	1.98	2.47
Other Mobile Sources	66.53	115.51	2.21	6.74
Total Anthropogenic Sources	352.67	201.21	11.79	10.61

	South Coast Air Basin		Coachella Valley	
	VOC	NOx	VOC	NOx
Stationary Point and Area Sources	238.97	39.05	7.60	1.38
On-Road Motor Vehicles	45.45	36.42	1.90	1.92
Other Mobile Sources	65.79	100.36	2.06	3.88
Total Anthropogenic Sources	350.21	175.83	11.56	7.19

TABLE 3-6 2031 SUMMER PLANNING VOC AND NOX EMISSIONS FOR SOUTH COAST AIR BASIN AND COACHELLA VALLEY (TONS PER DAY) WITH LINE ITEM ADJUSTMENTS

## Uncertainties in the Emissions Inventory

An effective AQMP/State Implementation Plan relies on a complete and accurate emissions inventory. Over the years, significant improvements have been made to quantify emission sources for which control measures are developed. Increased use of continuous monitoring and source testing has contributed to the improvements in point source inventories. Technical assistance provided to facilities and auditing of reported emissions by the South Coast AQMD have also improved the accuracy of the emissions inventory. Area source inventories that rely on average emission factors and regional activity data have inherent uncertainties. Industry-specific surveys and source-specific studies during rule development have also provided a certain degree of refinement to these emissions estimates. Mobile source inventories are also continuously updated and improved. For example, many improvements are included in the on-road mobile source model EMFAC 2021, which estimates emissions from trucks, automobiles, and buses. Improvements and updates are also included in the methodologies for off-road mobile sources. Overall, the emissions inventory in this Plan is based on the most current data and methodologies, resulting in the most accurate inventory available.

Relative to future growth, there are many challenges inherent in making accurate projections, such as where vehicle trips will occur, distribution between various modes of transportation (such as trucks and trains) as well as estimates for population growth and the number and type of jobs. Forecasts are made with the best information available; nevertheless, there is uncertainty in emissions projections. AQMP updates are generally developed every three to four years, thereby allowing for frequent updates and improvements to the inventories. In sum, the future emission projections in this Plan are a reasonable forecast with the latest updates to on-road sectors accounting for the majority of emissions.

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 4 – CONTROL STRATEGY** 

## **Control Strategy**

The overall control strategy for meeting the 2008 8-hour ozone standard in Coachella Valley is based on the continued implementation of adopted rules and regulations by South Coast AQMD and CARB. As demonstrated by the air quality modeling presented in Chapter 5, NOx is the key pollutant that must be controlled to reduce ozone levels in Coachella Valley. Attainment of the 2008 8-hour ozone NAAQS in the Coachella Valley requires NOx emissions to be reduced to 7.19 tons per day by 2031.

There are four categories of reductions accounted for to attain the 2008 8-hour ozone NAAQS in the Coachella Valley - baseline reductions, Regional Clean Air Incentives Market (RECLAIM) landing rules, recently adopted rules affecting non-RECLAIM sources, and recently adopted mobile source regulations.

Baseline reductions are reductions anticipated under a business-as-usual scenario, which accounts for continued implementation of adopted rules and regulations already reflected in the baseline. The baseline emissions for this Plan incorporate rules adopted by October 2020 by South Coast AQMD. This includes Rules 1111, 1113, 1118.1, 1134, 1135, 1146, 1146.1, 1168, and the Facility-Based Mobile Source Measure for Commercial Airports. Additionally, Rule 1109.1, adopted in November 2021, is included in the baseline due to its significant impact.

RECLAIM landing rules in this Plan refer to a group of rules adopted generally between 2018 and 2023 to implement <u>Best Available Retrofit Control Technology (BARCT) and facilitate</u> the RECLAIM program's <u>potential</u> transition to a command-and-control regulatory structure, including Rules 1110.2, 1118.1, 1134, 1135, 1146 series, 1147 series, and 1153.1. Some of these rules affect both RECLAIM and non-RECLAIM sources. While the non-RECLAIM reductions are reflected in the baseline emissions, these rules achieve additional reductions from RECLAIM sources that are not accounted for in the baseline. This Plan's attainment strategy accounts for the reductions from the landing rules.

Except for Rule 1109.1, rules adopted since November 2020 are not reflected in the baseline; however, the reductions anticipated from those rules are quantified and relied on to attain the 2008 8-hour ozone NAAQS in the Coachella Valley. They are Rules 1111, 1147, 1147.1, 1147.2, 1150.3, 1153.1, 1168, and 1179.1. Some of these rules apply to both RECLAIM and non-RECLAIM facilities. The RECLAIM portion is quantified under the "RECLAIM landing rules" and the remainder is quantified as "reductions from recently adopted rules affecting non-RECLAIM sources."

Finally, reductions from CARB's mobile source regulations adopted in 2022 and beyond are also accounted for in this Plan. The reductions from recently adopted stationary and mobile source rules are referred to as line item adjustments. U.S. EPA's Clean Trucks Rule is accounted for in this category, as well. With the reductions from these four categories, the Coachella Valley is expected to attain the 2008 8-hour ozone standard by 2031. This chapter provides further details regarding the rules and regulations included in baseline and line item adjustments.

## South Coast AQMD Existing Regulations and Programs Providing Emission Reductions in Future Baseline Emissions

South Coast AQMD has implemented aggressive NOx and VOC emission reduction strategies in the past several decades to attain federal ozone standards in the South Coast Air Basin and Coachella Valley. The emissions benefits of these regulations and programs are reflected in the future baseline emissions which are used for air quality modeling and attainment demonstration purposes. These emissions reflect the specific control requirements in existing rules and regulations as well as the natural turnover of engines, equipment, and appliances. The baseline emissions decrease by 9.05 and 1.67 tons per day of NOx and VOC emissions, respectively between the 2018 base year and 2031 attainment year. Existing South Coast AQMD rules which account for reductions in the baseline emissions between 2018 and 2031 are summarized in Table 4-1 and are briefly described below.

District Rule	Adoption/Amendment
	Date
Rule 1109.1 – Emissions of Oxides of Nitrogen from	11/5/2021
Petroleum Refineries and Related Operations	
Rule 1111 – Reduction of NOx Emissions from Natural-Gas-	3/2/2018
Fired, Fan-Type Central Furnaces	
Rule 1113 – Architectural Coatings	2/5/2016
Rule 1118.1 – Control of Emissions from Non-Refinery	1/4/2019
Flares*	
Rule 1134 – Emissions of Oxides of Nitrogen from	4/5/2019
Stationary Gas Turbines*	
Rule 1135 – Emissions of Oxides of Nitrogen from Electricity	11/2/2018
Generating Facilities*	
Rule 1146 and 1146.1 – Emissions of Oxides of Nitrogen	12/7/2018
from Industrial, Institutional, and Commercial Boilers,	
Steam Generators, and Process Heaters*	
Rule 1168 – Adhesive and Sealant Applications	10/6/2017
Facility-Based Mobile Source Measure for Commercial	12/6/2019
Airports	

#### TABLE 4-1

### SUMMARY OF SOUTH COAST AQMD RULES INCLUDED IN BASELINE EMISSIONS

\* Only the non-RECLAIM portion of these rules is reflected in the baseline

- Rule 1109.1 (Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations) Rule 1109.1 was adopted on November 5, 2021, to establish NOx limits for petroleum refineries and facilities with operations related to petroleum refineries, which includes asphalt plants, biofuel plants, hydrogen production plants, facilities that operate petroleum coke calciners, sulfuric acid plants, and sulfur recovery plants at petroleum refineries. A robust Best Available Retrofit Control Technology (BARCT) analysis was conducted to establish the NOx limits for each class and category of equipment that included a technology assessment, cost-effectiveness, and incremental cost-effectiveness analysis. Emission reductions from Rule 1109.1 will continue through 2035 when the rule is fully implemented.
- Rule 1111 (Reduction of NOx Emissions from Natural Gas- Fired, Fan-Type Central Furnaces) Rule 1111 was originally adopted in 1978 to reduce NOx emissions from natural-gas-fired, fantype central furnaces used for residential and commercial space heating. The rule establishes NOx limits while, in some instances, allowing manufacturers to pay a mitigation fee in lieu of complying with the limits. Rule 1111 was amended on March 2, 2018 to increase the mitigation fee and extend that compliance option until 2021, provide an exemption from the mitigation fee increase for units already committed in a contractual agreement, and prevent the installation of propane furnaces that are capable of being operated on natural gas without proper certification. Emission reductions from implementation of the 2018 amendment will continue until 2050, with the resulting reductions accounted for in the baseline. Rule 1111 was last amended in September 2023 to extend the compliance date for mobile home furnaces until 2025, resulting in a two-year delay in NOx reductions.
- Rule 1113 (Architectural Coatings)

Rule 1113 was first adopted in 1977 and most recently amended on February 5, 2016, to limit the VOC content of architectural coatings used in the South Coast AQMD jurisdiction. Rule 1113 applies to any person who supplies, sells, markets, offers for sale, or manufactures any architectural coating. These coatings are used to enhance the appearance of and to protect stationary structures and their appurtenances, including homes, office buildings, factories, pavements, curbs, roadways, racetracks, bridges, other structures, on a variety of substrates. Coating-specific emission limits range from 50 to 730 g/L, depending on coating category. Rule 1113 has a small container exemption for architectural coatings in containers of less than one liter, unless otherwise specified. Emission reductions from Rule 1113 continued until 2021 when the rule was fully implemented.

Rule 1118.1 (Control of Emissions from Non-Refinery Flares)
 Rule 1118.1 (Control of Emissions from Non-Refinery Flares)
 Rule 1118.1 was adopted on January 4, 2019, to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases or vapors at non-refinery facilities and to encourage alternatives to flaring. Non-refinery facilities include oil and gas production facilities, wastewater treatment facilities, landfills, organic liquid handling facilities, and others. Rule 1118.1 establishes NOx and VOC emission limits, provisions for source testing,

monitoring, reporting, recordkeeping, and provides exemptions for low-use and low-emitting flares. Rule 1118.1 also encourages alternatives to flaring, such as energy generation, transportation fuels, or pipeline injection. Emission reductions from implementation of Rule 1118.1 began in 2022 and will continue until 2025.

• Rule 1134 (Emissions of Oxides of Nitrogen from Stationary Gas Turbines)

Rule 1134 was adopted in 1989 to reduce NOx emissions from stationary gas turbines 0.3 megawatt (MW) and larger. In April 2019, Rule 1134 was amended to expand the applicability to include gas turbines installed after 1989 and those at Regional Clean Air Incentives Market (RECLAIM) facilities, lower NOx concentration limits for gas turbines based on a BARCT assessment, establish new ammonia slip limits and exemptions for low NOx gas turbines, clarify monitoring, recordkeeping, and reporting requirements, and exclude gas turbines located at electricity generating facilities, petroleum refineries, publicly-owned treatment works, landfills, and turbines utilizing landfill gas. Implementation of the 2019 amendment began in 2024 and will continue until 2027.

- Rule 1135 (Emissions of Oxides of Nitrogen from Electricity Generating Facilities) Rule 1135 was adopted in 1989 to reduce NOx emissions from electric generating facilities including electric power generating steam boiler systems, repowered units, and alternative electricity generating sources. Rule 1135 was amended in 2018 to establish BARCT limits for electricity generating facilities that are investor-owned electric utilities, publicly owned electric utilities, or have a generation capacity of at least 50 megawatts of electrical power. Implementation of the 2018 amendment began in 2020 and will continue until 2025.
- Rule 1146 and 1146.1 (Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters)
   Rule 1146 was adopted in 1988 and applies to boilers, steam generators, and process heaters of equal to or greater than 5 million Btu per hour used in all industrial, institutional, and commercial operations. Rule 1146.1 was adopted in 1990 and applies to boilers, steam generators, and process heaters that are greater than 2 million Btu per hour and less than 5 million Btu per hour. Rule 1146 establishes three groups of units based on the size or type of fuel used. Rules 1146 and 1146.1 were amended on December 7, 2018 to revise NOx limits to reflect BARCT. Emission reductions from implementation of Rule 1146 and Rule 1146.1 will continue until 2033.
- Rule 1168 (Adhesive and Sealant Applications)
   Rule 1168 was originally adopted in 1989 to reduce VOC emissions from adhesive and sealant applications. This rule establishes VOC limits for 59 categories of adhesives, adhesive primers, sealants, and sealant primers. Rule 1168 applies to products that are used during manufacturing at stationary sources and to products used by consumers that are not regulated by the CARB Consumer Product Regulation. In September 2017, Rule 1168 was amended to implement the 2016 AQMP Control Measure CTS-01: Further Emission Reductions from Coatings, Solvents,

Adhesives, and Sealants. The amendment includes revision of VOC content limits for various categories, reporting and labeling requirements, and clarification of rule language that distinguishes when products are regulated by the CARB Consumer Products Regulation. Rule 1168 was last amended in November 2022 to relax the stringency of certain limits due to a technology assessment, which demonstrated that previous limits were not feasible. In addition, the amendment prohibited the use of para-Chlorobenzotrifluoride (pCBtF) and tertiary-Butyl Acetate (t-BAc), which are significantly more toxic than previously thought, resulting in some VOC limits being increased to accommodate less toxic substitutes with marginally higher VOC content while reformulated products with less toxic material are under development. Emission reductions from implementation of Rule 1168 will continue until 2028.

• Facility-Based Mobile Source Measure for Commercial Airports

The Facility-Based Mobile Source Measure (FBMSM) for Commercial Airports, in the form of Memoranda of Understandings (MOUs) with five commercial airports, controls non-aircraft mobile sources at commercial airports and was adopted by South Coast AQMD on December 6, 2019. MOUs were executed with Los Angeles International Airport, John Wayne Airport, Hollywood Burbank Airport, Ontario International Airport, and Long Beach Airport. All five airports developed their own measures to reduce non-aircraft emissions. The measures cover ground support equipment, heavy-duty trucks, and shuttle buses. Implementation of the MOUs will continue through 2031.

## Recently Adopted South Coast AQMD Stationary Source Rules

As outlined in the introduction of this chapter, some South Coast AQMD rules are not reflected in the baseline emissions. Instead, their reductions are reflected as line item adjustments. There are two types of such additional reductions from stationary sources considered in this Plan:

- 1) RECLAIM landing rules; and
- 2) Rules for non-RECLAIM sources adopted since the development of the 2022 AQMP.

An explanation of these additional reductions as well as summaries of the applicable rules are provided in the following sections.

### **RECLAIM Landing Rules**

RECLAIM is a market-based, cap-and-trade program for facilities that emit greater than or equal to 4 tons per year of NOx or SOx. South Coast AQMD has focused extensive rulemaking efforts to transition the RECLAIM universe to a conventional command-and-control regulatory framework by 2026 for NOx, although the final structure of RECLAIM is still under evaluation. In addition, <u>these rules require RECLAIM</u>

facilities are subject to an expedited schedule to implement BARCT no later than December 31, 2023, pursuant to AB 617.

RECLAIM sources are subject to NOx and SOx emission allocation caps specified in Rule 2002 - Allocations for Oxides of Nitrogen and Oxides of Sulfur. Rule 2002 was amended in December 2015 to implement a NOx allocation cap "shave" of 12 tons per day by 2022. The NOx shave is reflected in the baseline. However, the reductions from most landing rules associated with RECLAIM sources were not accounted for in the baseline. This is because, at the time of the 2022 AQMP development, it was uncertain whether those reductions would be considered part of the RECLAIM NOx shave. To avoid double counting, those reductions from landing rules were assumed to be included in the RECLAIM NOx shave in the 2022 AQMP. However, subsequent analysis revealed that the landing rules achieve reductions that exceed the requirements of the RECLAIM NOx shave over a longer timeframe. Given the maturity of the RECLAIM NOx shave in 2022, any reductions in excess of the 2022 reductions are considered new reductions and are presented as a line item adjustment.

In total, RECLAIM landing rules account for 2.88 tons per day of further NOx emission reductions beyond the 2031 baseline for the South Coast Air Basin. There are no reductions associated with RECLAIM landing rules in Coachella Valley. Table 4-2 summarizes the RECLAIM landing rules included in the line item adjustment and an overview of rules not discussed in the previous section is provided below.

### TABLE 4-2 SUMMARY OF SOUTH COAST AQMD RECLAIM LANDING RULES INCLUDED IN THE LINE ITEM ADJUSTMENT

on/Amendment
019
19
19
018
018
018
22
21
22
23

- Rule 1110.2 (Emissions from Gaseous- and Liquid-Fueled Engines)
  - Rule 1110.2 was adopted in 1990 to regulate NOx and VOCs from stationary and portable engines over 50 rated brake horsepower. Rule 1110.2 was amended on November 1, 2019 to remove exemptions for RECLAIM facilities and require engines at all facilities to comply with NOx and VOC emissions limits. The implementation schedule for RECLAIM facilities established in Rule 1100 -Implementation Schedules for NOx Facilities requires that most stationary engines comply with the NOx limits in Rule 1110.2 by December 31, 2023. The tier phase-out schedule for portable diesel engines is specified by CARB's Airborne Toxic Control Measure, with implementation dates beyond 2027 depending on the engine certification. Emission reductions from implementation of Rule 1110.2 began in 2020 and will continue through 2029.

• Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters)

Rule 1146.2 was adopted in 1998 to reduce NOx emissions from natural gas-fired water heaters, boilers, and process heaters that have a rated heat input capacity less than or equal to 2,000,000 BTU per hour. Rule 1146.2 classifies Type 1 Units as large water heaters and small boilers or process heaters with a rated heat input capacity less than or equal to 400,000 BTU per hour, and Type 2 Units are defined as units with a rated heat input capacity greater than 400,000 BTU per hour to 2,000,000 BTU per hour. Rule 1146.2 does not regulate residential gas-fired tank type water heaters which are regulated under South Coast AQMD Rule 1121. Rule 1146.2 was amended on December 7, 2018 to update NOx emission limits to reflect BARCT for RECLAIM and non-RECLAIM facilities. Emission reductions from implementation of Rule 1146.2 began in 2022 and continued through 2023.

• Rule 1147 (NOx Reductions from Miscellaneous Sources)

Rule 1147 was adopted in 2008 to reduce NOx emissions from gaseous and liquid fuel fired combustion equipment. Under Rule 1147, equipment requiring South Coast AQMD permits that are not regulated by other NOx rules must meet a NOx emission limit depending upon equipment type and process temperature. Rule 1147 was amended in May 2022 to update NOx emission limits and include new CO limits to reflect BARCT. The amendment established additional combustion equipment categories and compliance schedules. Compliance dates for emission limits are based on the date of equipment manufacture and emission limits are applicable to older equipment first. Owners or operators of units that are not in compliance with the Rule 1147 NOx limits must submit applications to meet the emission limits by July 1, 2023, or July 1 of the year after the burner becomes 12 years old, whichever is later. Emission reductions from implementation of Rule 1147 began in 2024 and will continue through 2059.

• Rule 1147.1 (NOx Reductions from Aggregate Dryers)

Rule 1147.1 was adopted on July 2, 2021, to reduce NOx emissions from gaseous fuel-fired aggregate dryers. This rule applies to owners and operators of aggregate dryers with NOx emissions greater than or equal to one pound per day with a rated heat input greater than 2,000,000 BTU per hour. Rule 1147.1 updated NOx emission limits for aggregate dryers previously regulated under Rule 1147 to represent BARCT. Compared to Rule 1147, Rule 1147.1 maintains a similar compliance schedule structure and requirements for monitoring and recordkeeping. Emission reductions from implementation of Rule 1147.1 begin in 2025 and will continue through 2057.

Rule 1147.2 (NOx Reductions from Metal Melting and Heating Furnaces)
 Rule 1147.2 was adopted on April 1, 2022, to reduce NOx emissions from Metal Melting Furnaces,
 Metal Heat Treating Furnaces, Metal Heating Furnaces, and Metal Forging Furnaces. Rule 1147.2

established NOx limits for facilities previously subject to Rule 1147. Emission reductions from implementation of Rule 1147.2 begin in 2026 and will continue through 2057.

• Rule 1153.1 (Emissions of Oxides of Nitrogen from Commercial Food Ovens)

Rule 1153.1 was adopted on November 7, 2014, to reduce NOx emissions from gaseous and liquid fuel-fired Commercial Food Ovens. Rule 1153.1 applies to facilities that operate commercial food ovens with a rated heat input capacity equal to or greater than 325,000 British thermal units (Btu) per hour which are used to prepare food or products for making beverages for human consumption. Rule 1153.1 was amended on August 4, 2023 to update the NOx emission limits to reflect BARCT and to establish future effective dates for zero emission limits for certain categories of commercial food ovens. Rule 1153.1 establishes NOx emission limits in two phases. Phase I establishes a NOx limit of 15 parts per million by volume (ppmv) for tortilla ovens heated solely by infrared burners and a NOx limit of 30 ppmv for all other commercial food oven categories. Phase II establishes zero emission limits for bakery ovens and cooking ovens rated less than or equal to three million Btu per hour, indirect-fired bakery ovens, and smokehouses. Emission reductions from implementation of Rule 1153.1 began in 2024 and will continue to 2036.

### Recently Adopted Rules Affecting Non-RECLAIM Sources

Stationary source rules affecting non-RECLAIM sources, amended from October 2020 through 2023, are not reflected in the baseline emissions. These include Rules 1111, 1147, 1147.1, 1147.2, 1150.3, 1153.1, 1168, and 1179.1. The emission reductions associated with these recently adopted rules are presented as a line item adjustment in this Plan and accounted for to demonstrate attainment. Because the Rule 1147 series and Rule 1153.1 are RECLAIM landing rules that affect both RECLAIM and non-RECLAIM sources, only the reductions affecting non-RECLAIM sources are included in this line item adjustment.

While most rule amendments resulted in additional emission reductions, amendments to Rules 1111 and 1168 resulted in emission increases. The emission increases associated with Rule 1111 are due to extending the compliance date for mobile home furnaces until 2025, while the increases associated with Rule 1168 are to accommodate reformulation of adhesive and sealants without pCBtF and t-Bac, which have been identified as potential carcinogens. In total, recently adopted rules for non-RECLAIM sources contribute 0.34 tons per day and 0.01 tons per day of further NOx emission reductions beyond the 2031 baseline for the South Coast Air Basin and Coachella Valley, respectively. Rules that were not discussed in previous sections are summarized below.

### TABLE 4-3 SUMMARY OF SOUTH COAST AQMD STATIONARY SOURCE RULES FOR NON-RECLAIM SOURCES INCLUDED IN THE LINE ITEM ADJUSTMENT

District Rule	Adoption/Amendment
	Date
Rule 1111 – Reduction of NOx Emissions from Natural-	9/1/2023
Gas-Fired, Fan-Type Central Furnaces	
Rule 1147 – NOx Reductions from Miscellaneous	5/6/2022
Sources*	
Rule 1147.1 – NOx Reductions from Aggregate Dryers*	8/6/2021
Rule 1147.2 – NOx Reductions from Metal Melting and	4/1/2022
Heating Furnaces*	
Rule 1150.3 – Emissions of Oxides of Nitrogen from	2/5/2021
Combustion Equipment at Landfills	
Rule 1153.1 – Emissions of Oxides of Nitrogen from	8/4/2023
Commercial Food Ovens*	
Rule 1168 – Adhesive and Sealant Applications	11/4/2022
Rule 1179.1 – Emission Reductions from Combustion	10/2/2020
Equipment at Publicly Owned Treatment Works	
Facilities	

\* These rules apply to both RECLAIM and non-RECLAIM sources. For a discussion of these rules, refer to the previous section.

- Rule 1150.3 (Emissions of Oxides of Nitrogen from Combustion Equipment at Landfills) Rule 1150.3 was adopted on February 5, 2021, to reduce NOx emissions from boilers, process heaters, and turbines located at Municipal Solid Waste (MSW) landfills and landfill gas to energy (LFGTE) facilities. Rule 1150.3 established BARCT requirements for boilers and process heaters with a rated heat input capacity greater than 2 MMBtu/hr and turbines rated less than 0.3 MW, located at a MSW landfill or LFGTE facility, which are permitted to fire landfill gas, including dual fuel units that are permitted to fire landfill gas and another fuel. Rule 1150.3 also applies to turbines rated greater than or equal to 0.3 MW located at an MSW landfill or LFGTE facility. Rule 1150.3 includes other gaseous or liquid fuel turbines since Rule 1134 requirements (which regulate turbines) specifically exclude turbines rated greater than or equal to 0.3 MW located at landfills or fueled by landfill gas. Emission reductions from implementation of Rule 1150.3 began in 2021 and will continue through 2057.
- Rule 1179.1 (Emission Reductions from Combustion Equipment at Publicly Owned Treatment Works Facilities)

Rule 1179.1 was adopted in October 2020 to establish NOx and VOC emission limits for boilers, process heaters, engines, and turbines at Publicly Owned Treatment Works (POTW) facilities burning digester gas or those units capable of burning digester and natural gas. Rule 1179.1 was developed to establish BARCT requirements for combustion equipment located at POTWs using

digester gas and contains provisions applicable to POTWs, excluding start-up and shutdown periods. Emission limits for these units are the same as those in Rules 1146 and 1146.1 for boilers and heaters and Rule 1110.2 for engines. Emission reductions from implementation of R1179.1 were achieved in 2020.

## CARB's Adopted Rules and Programs

## Key Mobile Source Regulations and Programs Providing Emission Reductions

Given the severity of California's air quality challenges and the need for ongoing emission reductions, the California Air Resources Board (CARB or Board) has implemented the most comprehensive mobile source emissions control program in the nation. CARB's comprehensive program relies on four fundamental approaches:

- Stringent emissions standards that minimize emissions from new vehicles and equipment;
- In-use programs that target the existing fleet and require the use of the cleanest vehicles and emissions control technologies;
- Cleaner fuels that minimize emissions during combustion; and,
- Incentive programs that remove older, dirtier vehicles and equipment and replace those vehicles with the cleanest technologies.

This multi-faceted approach has spurred the development of increasingly cleaner technologies and fuels and achieved significant emission reductions across all mobile source sectors that go far beyond national programs or programs in other states. These efforts extend back to the first mobile source regulations adopted in the 1960s, and pre-date the federal Clean Air Act Amendments (Act) of 1970, which established the basic national framework for controlling air pollution. In recognition of the pioneering nature of CARB's efforts, the Act provides California unique authority to regulate mobile sources more stringently than the federal government by providing a waiver of preemption for its new vehicle emission standards under Section 209(b). This waiver provision preserves a pivotal role for California in the control of emissions from new motor vehicles, recognizing that California serves as a laboratory for setting motor vehicle emission standards. Since then, CARB has consistently sought and obtained waivers and authorizations for its new motor vehicle regulations. CARB's history of progressively strengthening standards as technology advances, coupled with the waiver process requirements, ensures that California's regulations remain the most stringent in the nation.

In 1998, CARB identified diesel particulate matter as a toxic air contaminant. Since then, CARB adopted numerous regulations aimed at reducing exposure to diesel particulate matter while concurrently providing reductions in oxides of nitrogen (NOx) from freight transport sources like heavy-duty diesel trucks, transportation sources like passenger cars and buses, and off-road sources like large construction equipment. Phased implementation of these regulations will continue to produce emission reduction

benefits through 2037 and beyond, as the regulated fleets are retrofitted, and as older and dirtier portions of the fleets are replaced with newer and cleaner models at an accelerated pace.

Further, CARB and District staff work closely on identifying and distributing incentive funds to accelerate cleanup of vehicles and engines. Key incentive programs include: Low Carbon Transportation, Air Quality Improvement Program, VW Mitigation Trust, Community Air Protection, Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), Goods Movement Program, Clean Off-Road Equipment (CORE) and Funding Agricultural Replacement Measures for Emission Reductions (FARMER). These incentive-based programs work in tandem with regulations to accelerate deployment of cleaner technology.

### **Light-Duty Vehicles**

Figure 4-1 illustrates the trend in CARB smog forming emission standards for light-duty vehicles. Cars are 99% cleaner than they were in 1975 due to CARB's longstanding light-duty mobile source program. Since setting the nation's first motor vehicle exhaust emission standards in 1966 that led to the first pollution controls, California has dramatically tightened emission standards for light-duty vehicles. In 1970, CARB required auto manufacturers to meet the first standards to control NOx emissions along with hydrocarbon emissions. The simultaneous control of emissions from motor vehicles and fuels led to the use of cleaner-burning reformulated gasoline (RFG) that has removed the emissions equivalent of 3.5 million vehicles from California's roads. Since CARB first adopted it in 1990, the Low Emission Vehicle Program (LEV and LEV II) and Zero-Emission Vehicle (ZEV) Program have resulted in the production and sales of hundreds of thousands of zero emission vehicles (ZEVs) in California.

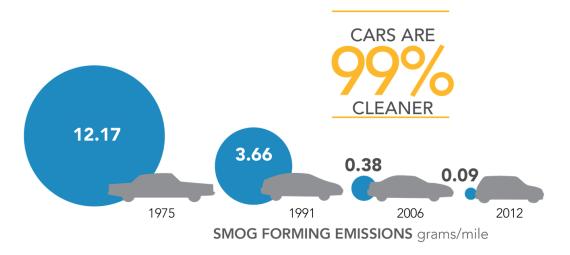


FIGURE 4-1 LIGHT-DUTY EMISSION STANDARDS

As a result of these efforts, light-duty vehicle emissions in the Coachella Valley ozone nonattainment areas have been reduced significantly since 1990 and will continue to go down through 2031. From the 2018 baseline, light-duty vehicle NOx emissions are projected to decrease by 60% in 2031. Key light-duty programs include Advanced Clean Cars (ACC), Advanced Clean Cars II (ACC II), On-Board Diagnostics, Reformulated Gasoline, Incentive Programs, and the Enhanced Smog Check Program.

1. Advanced Clean Cars

Light- and medium-duty vehicles are currently regulated under California's Advanced Clean Cars (ACC) program, which includes the Low Emission Vehicle III (LEV III) and ZEV programs. CARB's ACC Program, first adopted in January 2012, is a pioneering approach of a 'package' of regulations that - although separate in construction - are related in terms of the synergy developed to address both ambient air quality needs and climate change. The ACC program combines the control of smog, soot causing pollutants and greenhouse gas (GHG) emissions into a single coordinated package of requirements, originally adopted for model years 2015 through 2025.

CARB's groundbreaking ACC program is now providing the next generation of emission reductions in California, and ushering in a new zero emission passenger transportation system. ACC II, which was adopted by the CARB Board in August 2022, imposes the next level of low-emission and zero emission vehicle standards for model years 2026-2035 that will contribute to meeting federal ambient air quality ozone standards and California's carbon neutrality targets. The ACC II regulations will rapidly scale down emissions of light-duty passenger cars, pickup trucks and SUVs starting with the 2026 model year. The ACC II regulations also take the State's already growing zero emission vehicle market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100% zero emission vehicles by 2035 for all new passenger cars, trucks and SUVs sold in California. ACC II is two pronged: it will drive the sales of ZEVs and the cleanest-possible plug-in hybrid-electric vehicles (PHEV) to 100% through the ZEV Regulation, while also reducing smog-forming emissions from new internal combustion engine vehicles through the Low Emission Vehicle (LEV) IV Regulation.

The success of the ACC program is evident: California is the world's largest market for ZEVs, with a wide variety now available at lower price points, attracting new consumers. In April 2023, California's target of 1.5 million ZEVs on the road by 2025 was met two years early, facilitated in part by \$2 billion in ZEV incentive funding and rebates that have been distributed to Californians through programs like the Clean Vehicle Rebate Project and Clean Cars 4 All. Zero emission vehicle commercialization in the light-duty sector is well underway. Longer-range battery electric vehicles are coming to market that are cost-competitive with gasoline fueled vehicles and hydrogen fuel cell vehicles are now also seeing significant sales. Autonomous and connected vehicle technologies are being installed on an increasing number of new car models. A growing network of retail hydrogen stations is now available, along with a rapidly growing battery charger network.

In support of California's transition to ZEVs, in 2020, Governor Newsom signed Executive Order N-79-20, which established a goal that 100% of California sales of new passenger cars and trucks be zero emission by 2035. With this order and many other recent actions, Governor Newsom acknowledged that clean air

and climate action remain priorities for California and require bold action, thereby helping to drive CARB regulations and the State of California's many efforts towards zero emissions.

2. On Board Diagnostics (OBD)

OBD systems serve an important role in helping to ensure that engines and vehicles maintain low emissions throughout their full life. OBD systems are designed to identify when a vehicle's emission control systems or other emission-related computer-controlled components are malfunctioning, causing emissions to be elevated above the vehicle manufacturer's specifications. Many states currently use the OBD system as the basis for passing and failing vehicles in their inspection and maintenance programs, as is exemplified by California's Smog Check program.

California's first OBD regulation required manufacturers to monitor some of the emission control components on vehicles starting with the 1988 model year. In 1989, CARB adopted OBD II, which required 1996 and subsequent model year passenger cars, light duty trucks, and medium duty vehicles and engines to be equipped with second generation OBD systems. The Board has modified the OBD II regulation in regular updates since initial adoption to address manufacturers' implementation concerns and, where needed, to strengthen specific monitoring requirements. Most recently, the Board amended the regulation in 2021 to require manufacturers to implement Unified Diagnostic Services (UDS) for OBD communications, which will provide more information related to emissions-related malfunctions that are detected by OBD systems, improve the usefulness of the generic scan tool to repair vehicles, and provide needed information on in-use monitoring performance. UDS implementation would be required for all 2027 and subsequent model year light- and medium-duty vehicles and engines, as well as some heavy-duty vehicles and engines.

3. California Enhanced Smog Check Program

The Bureau of Automotive Repair (BAR) is the State agency charged with administration and implementation of the Smog Check Program. The Smog Check Program is designed to reduce air pollution from California registered vehicles by requiring periodic inspections for emission control system problems, and by requiring repairs for any problems found. In 1998, the Enhanced Smog Check program began in which Smog Check stations relied on the BAR-97 Emissions Inspection System (EIS) to test tailpipe emissions with either a Two-Speed Idle (TSI) or Acceleration Simulation Mode (ASM) test depending on where the vehicle was registered. For instance, vehicles registered in urbanized areas received an ASM test, while vehicles in rural areas received a TSI test.

In 2009, the following requirements were added in to improve and enhance the Smog Check Program, making it more inclusive of motor vehicles and effective on smog reductions:

- Low pressure evaporative test;
- More stringent pass/fail cutpoints;
- Visible smoke test; and
- Inspection of light- and medium-duty diesel vehicles.

The next major change in the program was due to AB 2289, passed in October 2010; this new law restructured California's Smog Check Program, streamlining and strengthening inspections, increasing penalties for misconduct, and reducing costs to motorists. This law, supported by CARB and BAR, promised faster and less expensive Smog Check inspections by taking advantage of the second generation of OBD software installed on all vehicles. The law also directed vehicles without this equipment to high-performing stations, helping to ensure that these cars comply with current emission standards. This program will reduce consumer costs by having stations take advantage of diagnostic software that monitors pollution-reduction components and tailpipe emissions. Beginning mid-2013, testing of passenger vehicles using OBD was required on all vehicles model years 2000 or newer.

4. Reformulated Gasoline (CaRFG)

Since 1992, CARB has been regulating the formulation of gasoline through the California Reformulated Gasoline program (CaRFG). The CaRFG program has been implemented in three phases resulting in California gasoline being the cleanest in the world. California's cleaner-burning gasoline regulation is one of the cornerstones of the State's efforts to reduce air pollution and cancer risk. Reformulated gasoline is fuel that meets specifications and requirements established by CARB, which reduced motor vehicle toxics by about 40% and reactive organic gases by about 15%. The results from cleaning up fuel can have an immediate impact as soon as it is sold in the State. Vehicle manufacturers design low-emission emission vehicles to take full advantage of cleaner-burning gasoline properties.

5. Clean Miles Standard

The Clean Miles Standard (CMS) program, which was adopted by CARB in 2021 and will be implemented by the California Public Utilities Commission (CPUC), is a regulation to reduce GHG emissions from ridehailing services offered by transportation network companies (TNCs), on a per-passenger mile basis, and promote electrification of the fleet by setting an electric vehicle miles travelled (eVMT) target. TNCs provide on-demand rides through a technology-based platform that connects passengers with drivers using personal or rented vehicles.

CMS includes two annual targets – an eVMT target as well as a GHG target in the metric of g CO2/PMT. The eVMT target would require TNCs to achieve 90% eVMT by 2030. The GHG target would require TNCs to achieve 0 g CO2/PMT by 2030 through electrification as well as other strategies, including increasing shared rides on their platform, improving operational efficiency (route planning and reduced mileage without passengers), and obtaining optional GHG credits. Optional GHG credits may be requested by the TNCs and approved by the CPUC for ride-hailing trips that are connected to mass transit through a verified booking process, and for investing in bicycle and sidewalk infrastructure projects that support active transportation.

6. Incentive Programs

There are many different incentive programs focusing on light-duty vehicles that produce extra emission reductions beyond CARB's regulations. Incentive programs encourage both the early retirement of dirty, older cars and the purchase of newer, lower-emitting vehicle engines and technologies. The State, in

partnership with the local air districts, has a well-established history of using incentive programs to advance technology development and deployment, and to achieve early emission reductions. Since 1998, CARB and California's local air districts have been administering incentive funding to accelerate the deployment and turnover to cleaner vehicles, starting with the Moyer Program. In recognition of the key role that incentives play in complementing State and local air quality regulations to reduce emissions, the scope and scale of California's air quality incentive programs has since greatly expanded. Each of CARB's incentive programs has its own requirements, goals, and categories of eligible projects that collectively provide for a diverse and complex incentives portfolio. CARB uses this portfolio approach to incentives to accelerate development and early commercial deployment of the cleanest mobile source technologies and to improve access to clean transportation.

A. Low Carbon Transportation Investments and Air Quality Improvement Program (Clean Transportation Incentives)

California's Low Carbon Transportation Investments and the Air Quality Improvement Program form CARB's major incentive funding program, which works in concert with the State's larger portfolio of clean transportation investments. Together, the Low Carbon Transportation Investments and Air Quality Improvement Program are known as the Clean Transportation Incentives program; they provide mobile source incentives to reduce greenhouse gas, criteria pollutant, and toxic air contaminant emissions through the deployment of advanced technology and clean transportation in the light-duty and heavy-duty sectors.

The Clean Transportation Incentives Program is part of California Climate Investments, and is designed to accelerate the transition to advanced technology low carbon freight and passenger transportation, with a priority on providing health and economic benefits to California's most disadvantaged communities, and with a focus on increasing deployment of zero emission vehicles and equipment wherever possible. Low Carbon Transportation Investments are supported by California's Cap-and-Trade auction proceeds. The Air Quality Improvement Program (AQIP) is a mobile source incentive program that focuses on reducing criteria pollutant and diesel particulate emissions with concurrent GHG reductions. AQIP is appropriated from the Air Quality Improvement Fund.

Each year, the legislature appropriates funding to CARB for the Low Carbon Transportation Investments and Air Quality Improvement Programs, and allocations are used to fund multiple programs in the passenger vehicle, on-road heavy-duty, and off-road vehicle sectors, including: the Clean Vehicle Rebate Project (CVRP); Enhanced Fleet Modernization Program and Plus-Up Pilot Project (Clean Cars 4 All); and the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP). For the FY 2023-24 budget, the Clean Transportation Incentive Program was allocated \$623.6 million across all mobile source categories, with \$80 million allocated for light-duty vehicle investments. CARB's Clean Transportation Equity and Light-Duty Vehicle Investments include the following projects:

### i. Clean Vehicle Rebate Project (CVRP)

As one of the programs funded through the Clean Transportation Incentives program, CVRP was a vehicle purchasing incentives program that provided consumer rebates to reduce the price for new ZEV purchases, and was designed to offer vehicle rebates on a first-come, first-serve basis for light-duty ZEVs, plug-in hybrid electric vehicles, and zero emission motorcycles. CVRP was recently phased out, but was in place from 2009 through November 2023 and provided consumers up to \$7,500 to purchase or lease a new PHEV, battery electric vehicle (BEV), or a fuel cell electric vehicle (FCEV).

ii. Clean Cars 4 All (CC4A)

Clean Cars 4 All (formerly known as the Enhanced Fleet Modernization Program Plus-Up Pilot Project) is another one of the Clean Transportation Incentives programs for passenger vehicles. CC4A provides incentives for lower-income consumers living in and near disadvantaged communities who scrap their old vehicles and purchase new or used hybrid, plug-in hybrid, or zero emission vehicle replacement vehicles. Additionally, buyers of PHEVs and BEVs are also eligible for home charger incentives or prepaid charge cards if home charger installation is not an option. The budget for FY 2023-24 included \$28 million Statewide, for CARB and District CC4A programs.

iii. -Financing Assistance for Lower Income Consumers

Financing Assistance for Lower Income Consumers provides financial resources to help lower-income Californians purchase advanced clean vehicles. The project offers vehicle price buy-downs (grants) at the point of sale, guarantees fair financing through lower-interest loans, and provides home charger incentives or portable chargers and prepaid charge cards where there are home charger installation barriers. The budget for FY 2023-24 included \$28 million for this program.

iv. -California E-Bike Incentive Project

The California E-Bike Incentive Project provides voucher incentives to low-income California residents for the purchase of electric bikes (e-bikes) including cargo e-bikes and adaptive e-bikes. The project also commits a portion of the project funding to e-bike safety, education, and training. The budget for FY 2023-24 included \$18 million for the California E-Bike Incentive Project.

v. -Access Clean California

Access Clean California helps streamline access to California Climate Investments' consumer-facing, equity-focused clean transportation and clean energy incentive programs for low-income and disadvantaged communities. The project also provides resources to nonprofits, community-based organizations, and similar grassroots organizations to help families in low-income and disadvantaged communities learn about, apply for, and participate in clean transportation and clean energy incentive programs. The budget for FY 2023-24 included \$5 million for the Access Clean California program.

vi. -Sustainable Community-Based Transportation Equity Mobility Projects

Sustainable Community-Based Transportation Equity Mobility Projects: Supports the transportation needs (other than vehicle ownership) of low-income residents and those living in low-income, disadvantaged, and tribal communities. Currently, CARB's Sustainable Community-Based Transportation Equity Mobility Projects includes Clean Mobility Options (CMO), Clean Mobility in Schools (CMIS), and the Sustainable Transportation Equity Project (STEP). Clean Mobility in Schools Projects are located within disadvantaged communities, and are intended to encourage and accelerate the deployment of new zero emission school buses, school fleet vehicles, passenger cars, lawn and garden equipment, and can incorporate alternative modes of transportation like transit vouchers, active transportation elements, and bicycle share programs. Some of the Clean Mobility Options programs that CARB funds include the Clean Mobility Options Voucher Pilot Program (CMO). CMO provides voucher-based funding for low-income, tribal, and disadvantaged communities to fund zero emission shared and on-demand services such as carsharing, ridesharing, bike sharing, and innovative transit services. STEP is a new transportation equity pilot program that funds zero emission carsharing, bike sharing, public transit, and shared mobility subsidies, among other projects. The budget for FY 2023-24 included \$50 million for Sustainable Community-Based Transportation Equity Mobility Projects.

vii. -Sustainable Community-Based Transportation Equity Planning and Capacity Building Project

The Sustainable Community-Based Transportation Equity Planning and Capacity Building Project increases transportation equity in disadvantaged and low-income communities by improving the local understanding of residents' transportation needs, helping develop organizational and community capacity building so communities are ready to plan for clean transportation solutions, and preparing communities to implement community-identified projects that fill transportation gaps and improve clean transportation access. The budget for FY 2023-24 included \$10 million for Sustainable Community-Based Transportation Equity Planning and Capacity Building Projects.

B. Moyer Program

The Moyer Program, funded by dedicated revenue from the Department of Motor Vehicle's (DMV) smog abatement fee and a fee on the purchase of new tires, provides approximately \$60 million in grant funding annually through local air districts for cleaner-than-required engines and equipment. Since 1998, approximately \$1.6 billion has been allocated to date. In the light-duty sector, the Moyer Program encourages voluntarily retirement of older, more polluting passenger vehicles through a Voluntary Accelerated Vehicle Retirement Program (VAVR), which is a car scrappage or old vehicle buy-back program that encourages the accelerated removal of higher-polluting vehicles that have passed their biennial Smog Check Test inspection, to be replaced with newer, cleaner vehicles or alternative transportation options.

C. Consumer Assistance Program

California's voluntary vehicle retirement program, the Consumer Assistance Program (CAP), is administered by BAR and provides low-income consumers repair assistance including up to \$1,200 in emissions-related repairs if their vehicle fails its biennial Smog Check Test inspection, and/or up to \$1,500 per vehicle for retiring operational vehicles at BAR-contracted dismantler sites.

D. Other Incentive Programs

Senate Bill (SB) 1275, signed into law in 2014, established the Charge Ahead California Initiative with the goals of placing one million zero emission and near-zero emission vehicles in California by 2023 to establish a self-sustaining market and increase access to these vehicles for all Californians, including priority populations. CARB's clean mobility and light-duty vehicle investments are designed to support the long-term transformation of California's fleet to meet the State's ZEV deployment goals, and to ensure that this transformation occurs in an equitable manner. The investments include vehicle purchase incentives and clean mobility investments, both of which incorporate and are supported by outreach, technical assistance, and workforce training and development. CARB also funds a suite of transportation equity pilot projects aimed at increasing access to clean transportation and mobility options for priority populations in disadvantaged and low-income communities, and for lower-income households. This includes clean vehicle ownership projects, clean mobility options, streamlining access to funding and financing opportunities, and increasing community outreach, education and exposure to clean technologies. These projects exemplify the importance of understanding the unique needs across communities and provide lessons for how we most directly address barriers to collectively achieve our equity, air quality, and climate goals.

### Medium- and Heavy-Duty On-Road Vehicles

Due to the benefits of CARB's longstanding heavy-duty mobile source program, heavy-duty on-road vehicle emissions in the Coachella nonattainment area have been reduced significantly since 1990 and will continue to decrease through 2031. From the 2018 baseline, medium- and heavy-duty NOx emissions are projected to decrease by over 79% in 2031. Key programs contributing to those reductions include new heavy-duty engine standards including those in the Heavy-Duty Omnibus Regulation, the Truck and Bus Regulation, the Clean Truck Check (Heavy-Duty Inspection and Maintenance Program), the Advanced Clean Trucks and Advanced Clean Fleets regulations, cleaner diesel fuel requirements, and incentive programs.

1. Heavy-Duty Engine Standards

Since 1990, heavy-duty engine NOx emission standards have become dramatically more stringent, dropping from 6 grams per brake horsepower-hour (g/bhp-hr) in 1990 down to the 0.2 g/bhp-hr standard, which took effect in 2010. In addition to mandatory NOx standards, there have been several generations of optional lower NOx standards put in place over the past 15 years. In 2015, engine manufacturers were allowed to certify to three optional NOx emission standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, and 0.02 g/bhp-hr (i.e., 50%, 75%, and 90% lower than the current mandatory standard of 0.2 g/bhp-hr). The

optional standards allow local air districts and CARB to preferentially provide incentive funding to buyers of cleaner trucks, and to encourage the development of cleaner engines.

2. Heavy-Duty Engine and Vehicle Omnibus Regulation

In 2021, CARB comprehensively overhauled how NOx emissions from new heavy-duty engines are regulated in California through the adoption of the Heavy-Duty Engine and Vehicle Omnibus Regulation (Omnibus Regulation) which reduces NOx emissions from the engines in medium- and heavy-duty vehicle classes. The Omnibus Regulation includes NOx certification emission standards as low as 0.02 g/bhp-hr in future years, new optional NOx emissions standards, and in-use standards that significantly reduce tailpipe NOx emissions during most vehicle operating modes such as high-speed steady-state, transient, low load urban driving, and idling modes of operation. Additionally, revisions to the emissions warranty, useful life, emissions warranty and reporting information and corrective action procedures, and durability demonstration procedures provide additional emission benefits by encouraging more timely repairs to emission-related malfunctions and encouraging manufacturers to produce more durable emission control components, thereby reducing the rate at which engine emission controls fail and emissions increase.

3. Cleaner In-Use Heavy-Duty Trucks (Truck and Bus Regulation)

California's Truck and Bus Regulation was first adopted in December 2008. This rule represented a multiyear effort to turn over the legacy fleet of heavy-duty on-road engines and replace them with the cleanest technology available. In December 2010, CARB revised specific provisions of the rule, in recognition of the deep economic effects of the recession on businesses and the corresponding decline in emissions.

Starting in 2012, the Truck and Bus Regulation phased in requirements applicable to an increasingly larger percentage of California's truck and bus fleet over time, so that by 2023 nearly all older vehicles were required to be upgraded to have exhaust emissions meeting 2010 model year engine emissions levels. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, including on-road and off-road agricultural yard goat trucks, and privately and publicly owned school buses. Moreover, the regulation applies to any person, business, school district, or federal government agency that owns, operates, leases or rents affected vehicles. The regulation also established requirements for any in-State or out-of-state motor carrier, California-based broker, or any California resident who directs or dispatches vehicles subject to the regulation. Approximately 170,000 businesses in nearly all industry sectors in California, and almost a million vehicles that operate on California roads each year are affected. Some common industry sectors that operate vehicles subject to the regulation include: for-hire transportation, construction, manufacturing, retail and wholesale trade, vehicle leasing and rental, bus lines, and agriculture.

In 2017, California passed legislation ensuring compliance with the Truck and Bus Regulation through the California DMV vehicle registration program. Starting January 1, 2020, DMV verifies compliance to ensure that vehicles subject to the Truck and Bus Regulation meet the requirements prior to obtaining DMV vehicle registration. The law requires the DMV to deny registration for any vehicle that is non-compliant or has not reported to CARB as compliant or exempt from the Truck and Bus Regulation.

4. Clean Truck Check (Heavy-Duty Inspection and Maintenance Program)

To ensure heavy-duty trucks remain clean in-use, CARB adopted in 2021 the Heavy-Duty Inspection and Maintenance Regulation, now known as the Clean Truck Check, which requires periodic demonstrations that vehicles' emissions control systems are properly functioning in order to legally operate within the State. The program was developed in accordance with Senate Bill 210 which directed CARB to develop and implement a comprehensive heavy-duty vehicle inspection and maintenance regulation to ensure that vehicles' emissions control systems are properly functioning when traveling on California's roadways. This regulation is designed to achieve criteria emissions reductions by ensuring that malfunctioning emissions control systems are repaired in a timely fashion.

The program began implementation in 2023 with roadside emissions monitoring using CARB's Portable Emissions Acquisition System (PEAQS), with additional requirement phasing in in 2024 and into the future. Through an integrated strategy combining roadside emissions monitoring to screen for potential high-emitting vehicles, improved emissions testing procedures using on-board diagnostics data, emissions checks and data reporting at required intervals, and compliance verification requirements for freight contractors, seaports, and railyards, the regulation is one of the most impactful regulations approved in recent CARB history.

5. Advanced Clean Truck Regulation (ACT)

In June 2020, CARB adopted the Advanced Clean Trucks regulation, a first of its kind regulation requiring medium- and heavy-duty manufacturers to produce ZEVs as an increasing portion of their sales beginning in 2024. The Advanced Clean Trucks regulation is a manufacturers ZEV sales requirement and a one-time reporting requirement for large entities and fleets. This regulation is expected to result in roughly 100,000 heavy-duty ZEVs operating on California's roads by 2030 and nearly 300,000 heavy-duty ZEVs by 2035. With the adoption of the Advanced Clean Trucks regulation, CARB Resolution 20-19 set the following targets for transitioning California's heavy-duty vehicle sectors to ZEVs:

- 100 percent zero emission drayage, last mile delivery, and government fleets by 2035;
- 100 percent zero emission refuse trucks and local buses by 2040;
- 100 percent zero emission-capable vehicles in utility fleets by 2040; and
- 100 percent zero emission everywhere else, where feasible, by 2045.

As mentioned earlier, the Governor signed Executive Order N-79-20 in September 2020, which directs CARB to adopt regulations to transition the State's transportation fleet to ZEVs. This includes transitioning the State's drayage fleet to ZEVs by 2035 and transitioning the State's truck and bus fleet to ZEVs by 2045 where feasible.

6. Advanced Clean Fleets (ACF)

The Advanced Clean Fleets (ACF) Regulation was adopted in 2023, and was developed to works in conjunction with the Advanced Clean Trucks regulation. ACT helps ensure that ZEVs are available for sale while ACF accelerates ZEV adoption in the medium- to heavy-duty sectors and for light-duty package

delivery trucks by setting zero emission requirements for fleets. The ACF regulation targets drayage trucks, public fleets, and other high priority fleets with 50 or more trucks or entities with trucks and \$50 million in annual revenues. This effort is part of a comprehensive strategy to achieve a ZEV truck and bus fleet by 2045 everywhere feasible, and significantly earlier for certain well-suited market segments such as last mile delivery, drayage, and government fleets.

7. Innovative Clean Transit (ICT) and Zero Emission Airport Shuttle Regulation

CARB has also adopted fleet rules to drive the adoption and use of zero emission technologies. In addition to the ACF Regulation that was described above, there are a suite of regulations driving zero emission technologies in certain well-suited market segments. The Innovative Clean Transit regulation was the first of these programs.<sup>30</sup> It was adopted in December 2018 and requires all public transit agencies to gradually transition to a 100 percent zero emission bus fleet and encourages them to provide innovative first- and last-mile connectivity and improved mobility for transit riders. Beginning in 2029, 100 percent of new purchases by transit agencies must be Zero Emission Buses, with a goal for full transition by 2040. It applies to all transit agencies that own, operate, or lease buses in California with a GVWR greater than 14,000 lbs. It includes standard, articulated, over-the-road, double-decker, and cutaway buses.

The Zero-Emission Airport Shuttle Regulation, adopted in June 2019, requires airport shuttle operators in California to transition to 100 percent ZEV technologies. Airport shuttle operators must begin adding zero emission shuttles to their fleets in 2027, and complete the transition to ZEVs by the end of 2035. The regulation applies to airport shuttle operators who own, operate, or lease vehicles at any of the 13 California airports regulated under this rule, including Palm Springs International Airport (PSP), Los Angeles International Airport (LAX), John Wayne Orange County Airport (SNA), Hollywood Burbank Airport (BUR), Ontario International Airport (ONT), and Long Beach Airport (LGB).

8. Heavy-Duty On-Board Diagnostics (HD OBD)

OBD systems serve an important role in helping to ensure that engines and vehicles maintain low emissions throughout their full life. OBD systems monitor virtually all emission controls on gasoline and diesel engines, including catalysts, particulate matter (PM) filters, exhaust gas recirculation systems, oxygen sensors, evaporative systems, fuel systems, and electronic powertrain components as well as other components and systems that can affect emissions when malfunctioning. The systems also provide specific diagnostic information in a standardized format through a standardized serial data link on-board the vehicles. The use and operation of OBD systems ensure reductions of in-use motor vehicle and motor vehicle engine emissions through improvements in emission system durability and performance.

The Board originally adopted comprehensive Heavy-Duty OBD regulations in 2005 for model year 2010 and subsequent heavy-duty engines and vehicles, referred to as HD OBD. In 2009, the Board updated the HD OBD regulation, adopted specific enforcement requirements, and aligned the HD OBD with OBD requirements for medium-duty vehicles. In 2021, the Board again amended the HD OBD regulation; the

<sup>&</sup>lt;sup>30</sup> CARB, Innovative Clean Transit. <u>https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit</u>

2021 amendments require manufacturers to implement Unified Diagnostic Services for OBD communications, which will provide more information related to emissions-related malfunctions that are detected by OBD systems, improve the usefulness of the generic scan tool to repair vehicles, and provide needed information on in-use monitoring performance.

9. Clean Diesel Fuel

Since 1993, CARB has required that diesel fuel have a limit on the aromatic hydrocarbon content and sulfur content of the fuel. Diesel powered vehicles account for a disproportionate amount of diesel particulate matter, which is considered a toxic air contaminant in California. In 2006, CARB required a low-sulfur diesel fuel to be used not only by on-road diesel vehicles but also for off-road engines. The diesel fuel regulation allows alternative diesel formulations as long as emission reductions are equivalent to the CARB formulation.

10. Incentive Programs

There are many different incentive programs focusing on heavy-duty vehicles that accelerate turnover to cleaner technologies, and thereby produce extra emission reductions beyond traditional regulations. Several State and local incentive funding pools have been used historically -- and remain available -- to fund the accelerated turnover of on-road heavy-duty vehicles. As the zero emission market grows and recently adopted regulations push for the widespread adoption of zero emission technologies, CARB is shifting the role of incentives in the heavy-duty market to increasingly focus on supporting small businesses and fleets.

For FY 2023-2024, the Legislature appropriated \$483.6 million for heavy-duty vehicle and off-road equipment investments. This appropriation consists of \$80 million for drayage trucks, \$375 million for public school buses, and \$28.6 million to be split equally between the Innovative Small e-Fleet Pilot Program (ISEF) and Clean Off-Road Equipment (CORE) programs. The appropriated funds will help to pay for zero emission drayage trucks and will assist in the replacement of older public school buses with zero emission public school buses. AQIP funds prioritize zero emission technology, heavy-duty projects, and achieving emission reduction benefits in nonattainment areas such. These investments would continue to support the transition of the California drayage fleet to zero emission and help to turn over the State's public school bus fleet, which will provide cleaner public school buses for children, who are more susceptible to the health impacts from air pollution. ISEF funding focuses on equitable investments that address challenges to zero emission technology adoption for owner operators and small fleets, which will help to support California's small businesses.

A. Low Carbon Transportation Investments and Air Quality Improvement Program (Clean Transportation Incentives)

In addition to funding passenger vehicle incentive programs, the Low Carbon Transportation Investments and the Air Quality Improvement Program (Clean Transportation Incentives) also provides incentive funding for heavy-duty vehicles. This program both funds projects to accelerate fleet and engine turnover to cleaner existing technologies through the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP), as well as funding demonstration and pilot projects.

CARB provides these incentive funds following the principles of the portfolio approach, meaning that funding is provided across multiple sectors and applications – as well as across multiple technologies to support both the technologies that are providing emission reductions today, as well as those that are needed to meet future goals as the technology matures. Heavy-duty investments support the commercialization and market development of zero emission trucks and buses. This includes funding for demonstration and pilot projects, vouchers for advanced clean technologies, and financing and support for small fleets transitioning to cleaner technologies.

i. Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)

CARB's HVIP serves as the cornerstone program in CARB's advanced technology heavy-duty incentive portfolio. HVIP has provided funding since 2010 to support the long-term transition to cleaner combustion and zero emission vehicles in the heavy-duty market. The program helps offset the higher costs of clean vehicles, and responds to a key market challenge by making clean vehicles more affordable for fleets through point-of-purchase price reductions. With an HVIP voucher, technology-leading vehicles can be as affordable as their traditional fossil-fueled counterparts, enabling fleets of all sizes to deploy advanced technologies that are cleaner and quieter. HVIP is the earliest model in the United States to demonstrate the function, flexibility, and effectiveness of first-come first-served incentives that reduce the incremental cost of commercial vehicles. HVIP is fleet-focused, providing a streamlined and user-friendly option to encourage purchases and leases of advanced clean trucks and buses throughout California. Approved dealers are a key part of HVIP success and are trained to facilitate the application process. In FY 2023-24, the HVIP allocations are \$375 million for public school buses and \$80 million for drayage trucks.

Innovative Small e-Fleets (ISEF) is a pilot program administered through HVIP that focuses on supporting small fleets by offering higher voucher amounts and supporting innovative solutions such as all-inclusive leasing, rentals, and "truck as a service" models. In the FY 2023-24 budget, \$14.3 million was allocated for the ISEF program.

ii. Zero-Emission Truck Loan Pilot Project

The Zero-Emission Truck Loan Pilot Project is a new project that received \$5 million in the FY 2022-23 funding plan, and is designed to provide smaller fleets transitioning to ZEVs financing opportunities for heavy-duty ZEVs and charging or fueling infrastructure. This project replaces the original Truck Loan Assistance Program which helped small-business fleet owners who were affected by CARB's Truck and Bus Regulation secure financing for upgrading their fleets to new trucks of any fuel type. CARB has partnered with the California Energy Commission (CEC) to build on the existing successful relationship in implementing the Truck Loan Assistance Program through CPCFA's California Capital Access Program. The CEC has matched CARB for charging or fueling infrastructure support. The pilot will allow CARB, CPCFA, CEC, and lenders, to learn from borrowers of small business fleets what is needed to make a successful

transition to zero emission and what additional areas of support are needed. In FY 2023-24, \$28.6 million was allocated for the Truck Loan Assistance Program.

iii. Advanced Technology Demonstration and Pilot Projects

Advanced Technology Demonstration and Pilot Projects are uniquely designed to take advantage of emerging opportunities. These projects are intended to accelerate the introduction of advanced emission reducing technologies that are on the cusp of commercialization into the California marketplace. Projects can utilize technologies in the demonstration phase or those already commercialized in larger scale deployments that align with the state's goals to reduce emissions. Over the course of the program, \$436 million has been allocated to support 34 separate projects. The FY 2021-22 and FY 2022-23 Solicitation for \$175 million collaborating with the CEC for an additional \$50 million has closed and is expected to provide an additional 12 projects.

In heavy-duty applications, the goods movement sector is a focus for incentive funding, with CARB funding multiple demonstration and pilot programs to drive zero emission technologies in last mile delivery trucks, drayage trucks, and heavy-duty trucks and tractors.

The \$9.2 million *Fuel Cell Hybrid Electric Delivery Van Deployment Project* built and demonstrated 15 additional fuel cell hybrid electric delivery vans at UPS's Ontario facility. This project was designed to promote future commercialization of fuel cell system retrofit kits that will significantly transform the parcel delivery market while achieving greenhouse gas, criteria pollutant, and toxic emission reductions. To accelerate the deployment of zero emission technologies in heavier freight applications, the \$66.5 *million Joint Electric Truck Scaling Initiative (JETSI)* project is funding 100 commercial, CARB-certified Class 8 battery electric trucks and infrastructure deployed at freight handling facilities in Ontario and South El Monte. The infrastructure funding covers DC fast chargers, solar, energy storage, and second life batteries to mitigate grid impacts and energy costs. This project includes innovations that provide for multiple truck configurations to meet drayage/regional haul applications and range.

The *Rural School Bus Pilot Project* provides grants for the purchase of commercially available cleaner school bus technologies such as zero emission (fuel cell or battery electric) and low carbon fuel options (renewable fuels). Schools in rural communities with the oldest and worst polluting fleets who traditionally have had fewer opportunities for grant funding are given funding priority, although all school districts within California are eligible to participate.

The Clean Transportation Incentives have also funded demonstration and pilot projects for zero emission urban transit buses. The \$22.3 million *Fuel Cell Electric Bus Commercialization Consortium* in the Bay Area and Southern California funded battery and fuel cell urban transit buses, which better serve communities' transit needs, substantially reduce greenhouse gas emissions, eliminate criteria pollutants, and provide economic benefits. In the Coachella Valley, the SunLine Transit Agency program was an \$18.7 million project that added 5 new fuel cell electric buses (FCEB) to the existing fleet of alternative fuel buses, which also included battery electric buses. The project upgraded SunLine's existing hydrogen fueling station in

Thousand Palms, California, with a new electrolyzer hydrogen production plant, supporting compression and storage equipment, and two new hydrogen fuel dispensers.

iv. Clean Transportation Equity Investments

As mentioned earlier, Clean Mobility in Schools Projects are also encouraging and accelerating the deployment of new zero emission heavy-duty engines and vehicles, including battery electric school buses and clean school fleet vehicles.

B. Moyer Program

In addition to funding passenger vehicle incentive programs, the Moyer Program's key purpose is providing monetary grants to private companies and public agencies to clean up their heavy-duty engines beyond that required by law through retrofitting, repowering or replacing their engines with newer and cleaner ones. These grants are issued locally by air districts. Projects that reduce emissions from heavy-duty on-road engines qualify, including heavy-duty trucks, drayage trucks, emergency vehicles, public agency and utility vehicles, school buses, solid waste collection vehicles, and transit fleet vehicles.

As the regulatory, technological and incentives landscape has changed significantly since the creation of the Moyer Program and to address evolving needs, the Legislature has periodically modified the program to better serve California. Most recently, Senate Bill (SB) 513 (Beall, 2015) has provided new opportunities for the Moyer Program to contribute significant emission reductions alongside implemented regulations, advance zero and near-zero technologies, and combine program funds with those of other incentive programs.

The Moyer Program also funds CARB's On-Road Heavy-Duty Voucher Incentive Program (VIP), which provides funding opportunities for small fleet owners with 10 or fewer vehicles to quickly replace their older heavy-duty diesel or alternative fuel vehicles. Under this program, fleet owners may be eligible for funding of up to \$410,000 for replacing their existing vehicle(s) to be scrapped and replaced by new trucks (zero emission or certified to the optional 0.02 g/bhp-hr NOx standard), or up to \$50,000 for replacing their existing fleet with used vehicles with 2013 model year or later engines. Air districts have the discretion to set certain local eligibility requirements based upon local priorities.

C. Goods Movement Emission Reduction Program (Prop 1B)

The Prop 1B Goods Movement Emission Reduction Program was created to reduce exposure for populations living near freight corridors and facilities that were being adversely impacted by emissions from goods movement. This program provided incentives to owners of equipment used in freight movement to upgrade to cleaner technologies sooner than required by law or regulation. Voters approved \$1 billion in total funding for the air quality element of the Prop 1B Program to complement \$2 billion in freight infrastructure funding under the same ballot initiative.

Beginning in 2008, the Goods Movement Emission Reduction Program funded by Prop 1B has funded cleaner trucks for the region's transportation corridors; the final increment of funds implemented projects

through 2020. The \$1 billion program was a partnership between CARB and local agencies, air districts, and seaports to quickly reduce air pollution emissions and health risk from freight movement along California's trade corridors. While all Prop 1B Program funds have been awarded to the local air districts for implementation, the program framework exists to serve as a mechanism to award clean truck funds through newer funding programs.

### D. Volkswagen (VW) Mitigation Trust

In 2015, after a CARB-led investigation, in concert with the United States Environmental Protection Agency (U.S. EPA), VW admitted to deliberately installing emission defeat devices on nearly 600,000 VW, Audi, and Porsche diesel vehicles sold in the United States, approximately 85,000 of which were sold in California. The VW California settlement agreement includes both a Mitigation Trust to mitigate the excess NOx emissions caused by the company's use of illegal defeat devices in their vehicles, as well as a ZEV Investment Commitment to help grow the State's expanding ZEV program. The Mitigation Trust includes approximately \$423 million for California to be used as specified in the settlement agreement. Per the Beneficiary Mitigation Plan approved by CARB in 2018, this funding will be used to replace older heavy-duty trucks, buses, and freight vehicles and equipment with cleaner models, with a focus on zero emission technologies where available and cleaner combustion everywhere else, as well as to fund light-duty ZEV infrastructure. In addition, there have been mitigation funds established as the result of other settlements from which funding is used to support clean technologies.

### E. Community Air Protection Incentives (AB 617 Community Air Protection Program)

Since the 2016 State SIP Strategy elucidated the need for additional legislative assistance in funding turnover programs to accelerate the deployment and adoption of cleaner technologies, the Legislature has since 2017 established a number of new incentive programs that are implemented through CARB through various budget bills, including the AB 617 Community Air Protection Program and Incentives. The State Legislature has provided substantial funding to achieve early emissions reductions in the communities most impacted by air pollution. In its 2018 funding allocation, the Legislature expanded the possible uses of AB 617 funds to include Moyer and Proposition 1B eligible projects with a priority on zero emission projects, zero emission charging infrastructure, stationary source projects, and additional projects consistent with the Community Emission Reduction Plans.

CARB and air districts partner to run the programs, with CARB developing guidelines and the districts administering funds for their regions. In most cases throughout the State, selected communities have identified mobile source emissions as a target for reductions. It is likely that a significant portion of the AB 617-allocated funding will incentivize the accelerated turnover to cleaner vehicles and equipment in and around low-income and disadvantaged communities.

### **Off-Road Sources**

Off-road sources encompass vehicles and equipment powered by an engine that does not operate on the road. Sources vary from ships to lawn and garden equipment, to locomotives, aircraft, tractors, harbor craft, off-road recreational vehicles, construction equipment, forklifts, and cargo handling equipment.

Figure 4-2 illustrates the comprehensive suite of emission control measures applicable to the broad variety of engines and vehicle that fall under the Off-Road category. As a result of these emission control efforts, off-road emissions in the Coachella nonattainment area have been reduced significantly since 1990 and will continue to decrease through 2031. From the 2018 baseline, off-road NOx emissions are projected to decrease by approximately 13 percent by 2031. More specifically, NOx emissions from the off-road sources that are primarily under CARB's regulatory authority are projected to decrease by over 53 percent by 2031. Key programs in this sector include the off-Road engine standards, the In-Use Off-Road Diesel-Fueled Fleets Regulation, Clean Diesel Fuel, Locomotive engine standards and CARB in-use requirements, and In-Use Large Spark Ignition (LSI) Fleet Regulation. Because attainment of the standard in the Coachella Valley is dependent on emission reductions achieved in the upwind South Coast Air Basin, this document describes the emission control measures for marine sources that may not be present within the Coachella Valley vozone nonattainment area.

#### 1. Off-Road Engine Standards

The Clean Air Act preempts states, including California, from adopting requirements for new off-road engines less than 175 horsepower (hp) used in farm or construction equipment. California may adopt emission standards for larger off-road engines pursuant to Section 209(e)(2), but must receive authorization from U.S. EPA before it may enforce the adopted standards.

CARB has had in place PM and NOx emissions standards for off-road compression-ignition engines since 1985. To further control emissions from off-road equipment, in 2004 CARB adopted the fourth tier and most recent iteration of increasingly stringent PM and NOx standards based on the use of advanced aftertreatment emission controls. These "Tier 4" standards apply to new off-road compression-ignition engines, and were phased-in across product lines from 2008 through 2015 and reduced exhaust emission levels by up to 95 percent compared to previous control strategies. New engine standard requirements vary according to the power rating of engines. Beginning in 2014, new Tier 4 construction equipment must emit about 96 percent less NOx and PM than new Tier 1 equipment sold in the year 2000.

CARB first approved regulations to control exhaust emissions from small off-road engines (SORE) such as lawn and garden equipment in December 1990 with amendments in 1998, 2003, 2010, 2011, 2016, and 2021. The 1990 - 2016 regulations were implemented through three tiers of progressively more stringent exhaust emission standards that were phased in between 1995 and 2008. The most recent suite of amendments (December 2021) requires most newly manufactured SORE engines be zero emission starting in 2024.

Manufacturers of forklift engines are subject to new engine standards for both diesel and Large Spark Ignition (LSI) engines. Off-road diesel engines were first subject to engine standards and durability requirements in 1996 while the most recent Tier 4 Final emission standards were phased in starting in 2013. Tier 4 emission standards are based on the use of advanced after-treatment technologies such as diesel particulate filters and selective catalytic reduction. LSI engines have been subject to new engine standards that include both criteria pollutant and durability requirements since 2001 with the cleanest requirements phased-in starting in 2010, as discussed in more detail below.

To control emissions from Transport Refrigeration Units (TRUs), CARB adopted in 2004 the Airborne Toxic Control Measure (ATCM) for In-Use Diesel-Fueled TRUs, TRU Generator Sets, and Facilities where TRUs Operate, which set increasingly stringent engine standards to reduce diesel particulate matter emissions from TRUs and TRU generator sets. The ATCM for TRUs was subsequently amended in 2010 and 2011, and most recently in February 2022, as the first phase of CARB's current push to develop new requirements to transition diesel-powered TRUs to zero emission technology in two phases. The February 2022 adoption, Part 1 amendments to the existing TRU Airborne Toxic Control Measure (ATCM), requires the transition of diesel-powered truck TRUs to zero emission. CARB plans to develop a subsequent Part 2 regulation to require zero emission trailer TRUs, domestic shipping container TRUs, railcar TRUs, and TRU generator sets, for future Board consideration.

2. In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)

The Off-Road Regulation was first approved in 2007 and subsequently amended in 2010 in light of the impacts of the economic recession. Equipment affected by this regulation are used in construction, manufacturing, the rental industry, road maintenance, airport ground support and landscaping. In December 2011, the Off-Road Regulation was modified to include on-road trucks with two diesel engines.

The Off-Road Regulation significantly reduces emissions of diesel PM and NOx from the over 150,000 inuse off-road diesel vehicles that operate in California. The Regulation affects dozens of vehicle types used in thousands of fleets by requiring owners to modernize their fleets by replacing older engines or vehicles with newer, cleaner models, retiring older vehicles or using them less often, or by applying retrofit exhaust controls.

The Off-Road Regulation imposes idling limits on off-road diesel vehicles, requires a written idling policy, and requires a disclosure when selling vehicles. The regulation also requires that all vehicles be reported to CARB and labeled, restricts the addition of older vehicles into fleets, and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing verified exhaust retrofits. The requirements and compliance dates of the Off-Road Regulation vary by fleet size.

Fleets are subject to increasingly stringent restrictions on adding older vehicles. The regulation also sets performance requirements. While the regulation has many specific provisions, in general by each compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year, or has completed the Best Available Control Technology requirements. The performance requirements of the 2010 Amendments were phased in from January 1, 2014 through January 1, 2019.

Most recently, the Off-Road Regulation was amended in November 2022. These 2022 Amendments will require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California; prohibit the addition of high-emitting vehicles to a fleet; and require the use of R99 or R100 renewable diesel in off-road diesel vehicles. Off-road vehicles and equipment subject to the amendments are used in construction, mining, industrial operations, and other industries. The amendments phase-in starting in 2024 through the end of 2036 and include changes to enhance enforceability and encourage the adoption of zero emission technologies.

3. Clean Diesel Fuel

Since 1993, CARB has required that diesel fuel have a limit on the aromatic hydrocarbon content and sulfur content of the fuel. Diesel powered vehicles account for a disproportionate amount of the diesel particulate matter which is considered a toxic air contaminant by the State of California. In 2006, CARB required a low-sulfur diesel fuel to be used not only by on-road diesel vehicles but also for off-road engines. The diesel fuel regulation allows alternative diesel formulations as long as emission reductions are equivalent to the CARB formulation.

4. Locomotives

The Clean Air Act and the U.S. EPA national locomotive regulations expressly preempt states and local governments from adopting or enforcing emissions standards for new locomotives and new engines used in locomotives (U.S. EPA interpreted new engines in locomotives to mean remanufactured engines, as well). U.S. EPA has promulgated two sets of national locomotive emission regulations (1998 and 2008). In 1998, U.S. EPA approved the initial set of national locomotive emission regulations. These regulations primarily emphasized NOx reductions through Tier 0, 1, and 2 emission standards. Tier 2 NOx emission standards reduced older uncontrolled locomotive NOx emissions by up to 60 percent, from 13.2 to 5.5 g/bhphr.

In 2008, U.S. EPA promulgated a second set of national locomotive regulations. Older locomotives upon remanufacture are required to meet more stringent PM emission standards which are about 50 percent cleaner than Tier 0-2 PM emission standards. U.S. EPA refers to the PM locomotive remanufacture emission standards as Tier 0+, Tier 1+, and Tier 2+. The new Tier 3 PM emission standard (0.1 g/bhphr), for model years 2012-2014, is the same as the Tier 2+ remanufacture PM emission standard. The 2008 regulations also included new Tier 4 (2015 and later model years) locomotive NOx and PM emission standards. The U.S. EPA Tier 4 NOx and PM emission standards further reduced emissions by approximately 95 percent from uncontrolled levels.

In April 2017, CARB petitioned U.S. EPA for rulemaking, seeking the amendment of emission standards for newly built locomotives and locomotive engines and lower emission standards for remanufactured locomotives and locomotive engines. The petition asks U.S. EPA to update its standards to take effect for remanufactured locomotives in 2023 and for newly built locomotives in 2025. The new emission standards would provide critical criteria pollutant reductions, particularly in the disadvantaged communities that surround railyards. U.S. EPA has not yet promulgated or formally began development of new standards.

In November 2022, CARB adopted the In-Use Locomotive Regulation, which is designed to accelerate the adoption of advanced, cleaner technologies for locomotive operations, including zero emission technologies. The regulatory elements include a spending account and idling limits (both beginning in 2024), and in-use operational requirements that begin in 2030. Spending account funds will be used to fund turnover to cleaner locomotives, rail equipment, and/or related infrastructure, with a structure that requires locomotive operators to fund their own trust account based on the emissions created by their locomotive operations in California so that the dirtier the locomotive, the more funds must be set aside. All locomotives with automatic shutoff devices (AESS) are subject to idling requirements of less than 30 minutes, unless for an exempted for reasons like maintaining air brake pressure or to perform maintenance. Starting in 2030, only locomotives less than 23 years old would be able to be used in California. Switchers, industrial, and passenger locomotives with original engine build dates of 2030 or newer would be required to operate in a zero emission configuration in California. Freight line haul locomotives with original engine build dates of 2035 and newer would be required to operate in a zero emission configuration in California.

5. Marine Sources and Ocean-Going Vessels (OGVs)

To reduce emissions from Ocean Going Vessels (OGV), CARB has adopted the Ocean-Going Vessel Fuel Regulation, "Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline" (2008) and the Ocean-Going Vessels At Berth Regulation (2007).

The At-Berth Regulation requires container ships, passenger ships, and refrigerated-cargo ships at six California ports to meet compliance requirements for auxiliary engines while they are docked, including emission or power reduction requirements. Reduced vessel speeds also provide emission reduction benefits, and programs are operated by local air districts along the California coast to incentivize lower speeds. In the 2022 State SIP Strategy, the CARB measure for 'Future Emissions Reductions from Ocean-Going Vessels' considers options available under CARB authority to achieve further emissions reductions including developing a regulation to control emissions from vessels transiting in California regulated waters.

In 2007, CARB adopted the Commercial Harbor Craft Regulation (CHC Regulation), which reduces toxic and criteria emissions. Commercial harbor craft include any private, commercial, government, or military marine vessels including, but not limited to ferries, excursion vessels, tugboats (including ocean-going tugboats), barges, and commercial and commercial passenger fishing boats. This regulation was subsequently amended in 2010, and again in March 2022, to establish expanded and more stringent in-use requirements to cover more vessel categories and mandate accelerated deployment of zero emission and advanced technologies in vessel categories where technology feasibility has been demonstrated.

To control emissions from personal watercraft, CARB also has had in place exhaust emission standards for new outboard and personal watercraft engines since 1998. On July 26, 2001, the Board amended the SI marine regulations to include HC+NOx emission standards for new sterndrive and inboard marine engines. These standards initially capped HC+NOx emissions at 16.0 g/kW-hr from 2003 to 2006, but beginning in 2007, sterndrive and inboard engines had to meet a catalyst-based 5.0 g/kW-hr HC+NOx standard. Staff is also exploring development of more stringent Spark-Ignition Marine Engine Standards, as described in the 2022 State SIP Strategy.

6. Large Spark-Ignition (LSI) Engines and Forklifts

Forklift fleets are subject to in-use fleet requirements either under the LSI fleet regulation, if fueled by gasoline or propane, or under the Off-Road Regulation, if fueled by diesel. Both regulations require fleets to retire, repower, or replace higher-emitting equipment in order to maintain fleet average standards.

Large spark-ignition engines, which are defined as spark-ignition (i.e., Otto-cycle) engines greater than 25 horsepower, are used in a variety of equipment, including, but not limited to, forklifts, airport ground support equipment (GSE), sweeper/scrubbers, industrial tow tractors, generator sets, and irrigation pumps. LSI equipment is found in approximately 2,000 fleets throughout the state operating at warehouses and distribution centers, seaports, airports, railyards, manufacturing plants, and many other commercial and industrial facilities.

CARB first adopted emission standards for off-road LSI engines in 1998. The original LSI regulation required engine manufacturers to certify new LSI engines to a 3.0 gram per brake horsepower-hour (g/bhp-hr) standard that, by 2004, represented a 75 percent reduction in emissions compared with uncontrolled LSI. Building on this success, in 2002, U.S. EPA subsequently harmonized the national standard with California's standard, starting with the 2004 model year and adopted a more stringent 2.0 g/bhp-hr standard for 2007 and subsequent model year engines. The federal program demonstrated that additional reductions from new engines were technically feasible and cost-effective. In the 2003 State Implementation Plan for Ozone (2003 SIP), California committed to two additional LSI measures—one for the development of more stringent new engine standards and another for the development of in-use fleet requirements.

CARB adopted these two LSI measures in a 2006 rulemaking, which harmonized California's standard with U.S. EPA's 2.0 g/bhp-hr standard starting with the 2007 model year, set forth a more stringent 0.6 g/bhp-hr California standard starting with the 2010 model year, and established in-use LSI fleet requirements. The 0.6 g/bhp-hr standard represents a 95% emission reduction versus uncontrolled LSI engines and is still in effect today.

The in-use element of the 2006 rulemaking, adopted as the Large Spark-Ignition Engine Fleet Requirements Regulation (LSI Fleet Regulation), which was eventually amended in 2010 and 2016, requires fleet operators with four or more LSI forklifts to meet fleet average emission standards. The 2006 LSI rulemaking and 2010 amendments required specific hydrocarbon + NOx fleet average emission level standards that became increasingly more stringent over time. The focus of the 2016 amendments was to collect data from fleet operators in order to inform the development of requirements that would support the broad-scale deployment of zero emission equipment in LSI applications. The 2016 amendments also

required fleet operators to report key compliance information to CARB, and extended to 2023 requirements from the prior LSI Fleet Regulations that were otherwise due to sunset in 2016.

7. Zero-Emission Forklift

Forklifts are widely used in freight, materials handling, manufacturing, and construction operations. In the freight industry, zero emission forklifts have already achieved substantial market acceptance and deployment volumes. However, in other industries, forklifts with spark-ignited engines are still widely used. The Zero-Emission Forklift Regulation, which the Board adopted in June 2024, is designed to phase out LSI forklifts by 2038 by accelerating the transition of LSI engine powered forklifts to zero emission technology (i.e., battery-electric, fuel cell-electric, or other zero emission technology as the only source of power for propulsion and work). The regulation requires forklift fleets to transition spark-ignited forklifts (e.g., propane and gasoline forklifts) to zero emission technology starting in 2026 with the oldest, highest-emitting forklifts being phased out first. The Zero-Emission Forklift Regulation targets most existing LSI forklifts in California, approximately 89,000 units, for use of zero emission technology. Because this regulation was very recently adopted, it has not yet been incorporated into emissions inventories and is not included in the Coachella Valley attainment demonstration for the 75 ppb ozone standard.

8. Cargo Handling Equipment (CHE)

Cargo handling equipment (CHE) include yard trucks (hostlers), rubber-tired gantry cranes, container handlers, forklifts, dozers, and other types. The Cargo Handling Equipment (CHE) Regulation established requirements for in-use and newly purchased diesel-powered equipment at ports and intermodal rail yards. CARB adopted the CHE in 2005, which established best available control technology (BACT) for new and in-use mobile CHE that operate at California's ports and intermodal rail yards through accelerated turnover of older equipment through retrofits and/or replacement to cleaner on- or off-road engines. Since 2006, the CHE Regulation has resulted in reductions of diesel PM and NOx at ports and intermodal rail yards throughout California.

9. Incentive Programs

There are many different incentive programs focusing on off-road mobile sources that increase the penetration of cleaner technologies into the market. The incentive programs encourage the purchase of cleaner off-road combustion engines and equipment, and zero emission technologies. CARB is expanding incentives for zero emission off-road equipment through targeted demonstration and pilot project categories in the off-road sector, and increased funding. As the off-road zero emission market grows and recently adopted regulations push for the widespread adoption of zero emission technologies, CARB is shifting the role of incentives to increasingly focus on supporting small businesses and fleets.

A. Low Carbon Transportation Investments and Air Quality Improvement Program (Clean Transportation Incentives)

As mentioned earlier, \$483.6 million was allocated in the FY 2023-2024 budget for off-road equipment and on-road heavy-duty trucks under the Clean Transportation Incentives programs. In the off-road sector,

major programs include CORE, and Demonstration and Pilot Programs. Off-road equipment categories that are prioritized for funding include agricultural and construction equipment, SORE such as lawn and garden equipment, heavier cargo handling equipment (CHE), and zero emission applications at railyards, marine ports, freight facilities, and along freight corridors.

i. Clean Off-Road Equipment (CORE) Voucher Incentive Project

CORE is a voucher project similar to HVIP, but for zero emission off-road equipment. CORE is intended to accelerate deployment of zero emission technologies in the off-road sector such as transport refrigeration units, construction and agricultural equipment, and commercial harbor craft by providing a streamlined way for fleets to access funding that helps offset the incremental cost of such technology. CORE targets commercial-ready products that have not yet achieved a significant market foothold. By promoting the purchase of zero emission over internal combustion options, the project is expected to reduce emissions, particularly in areas that are most impacted, help build confidence in zero emission technology in support of CARB strategies and subsequent regulatory efforts where possible, and provide other sector-wide benefits, such as technology transferability, reductions in advanced-technology component costs, and larger infrastructure investments. CORE provides vouchers to California purchasers and lessees of zero emission off-road equipment on a first-come, first-served basis, with increased incentives for equipment located in disadvantaged communities.

CARB launched CORE at the end of 2019 through a one-time \$40 million allocation in the fiscal year 2017-18 Funding Plan to support zero emission freight equipment through CORE. Since that time, CORE has been allocated significant additional funds, including \$194.95 million from the FY 2021-22 budget. This allocation includes \$30 million of dedicated funds appropriated by the Legislature in SB 170 to provide incentives for professional landscaping services in California operated by small businesses or sole proprietors to purchase zero emission small off-road equipment. The FY 2023-24 budget appropriated \$14.3 million for CORE.

ii. Advanced Technology Demonstration and Pilot Projects

Advanced Technology Demonstration and Pilot Projects: Demonstration and Pilot Projects help accelerate the introduction of advanced technology vehicles, equipment, or emission controls into the California marketplace. CARB is focusing funding on off-road demonstration and pilot projects that include heavier cargo handling equipment (CHE), clean equipment in rail, marine, and ports applications, and zero emission equipment along freight facilities/corridors.

For the *Port of LA Multi-Source Facility Demonstration Project*, the Los Angeles Harbor Department (Port of LA) was awarded \$14.5 million to operate multiple near-zero or zero emission technologies to move goods from ships through the Green Omni Terminal. This project is demonstrating the viability of electrified CHE, forklifts, and a ships at-berth vessel emissions control system. The *Zero-Emission Freight "Shore to Store"* Project is an \$82 million project to fund electric yard tractors, hydrogen fuel cell Class 8 on-road trucks, and a large capacity hydrogen fueling station in Ontario, CA. Additional zero- and near zero emission freight facility projects include a \$13.3 million *Capture and Control System for Oil Tankers* 

*Project,* which has been developed to design, develop, safely demonstrate the capture and control system that reduces NOx, PM2.5, ROG, TACs, and DPM from both the auxiliary engines and boilers of oil tankers at the Port of Long Beach. The project includes an innovative barge-based capture and control system design, including a self-propelled spud-barge platform, an exhaust capture system, purification units, carbon-capture, solar, fuel cell, battery, and hydrogen storage. The fuel used to power the barge and the capture and control system will be either renewable or zero-carbon fuel, which mitigates greenhouse gas emissions from this operation.

B. Funding Agricultural Replacement Measures for Emission Reductions (FARMER)

California's agricultural industry consists of approximately 77,500 farms and ranches, providing over 400 different commodities, making agriculture one of the State's most diverse industries. In recognition of the strong need and this industry's dedication to reducing their emissions, the Legislature has allocated over \$760 million Statewide towards the Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program since 2017. For FY 2023-24, \$75 million has been appropriated to fund the FARMER program. The program provides funding through local air districts for incentivizing the introduction of lower-emissions agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other equipment used in agricultural operations. The FARMER Program also includes a project category for demonstration projects and modifications to the zero emission agricultural utility terrain vehicle (UTV), heavy-duty agricultural truck, and off-road mobile agricultural equipment trade-up pilot project categories. Since April 2022, the program also funds zero emission agricultural equipment which are becoming more readily available in the agricultural industry. As of September 2023, the FARMER Program has spent \$461.3 million on over 9,649 pieces of agricultural equipment and will reduce 1,580 tons of PM2.5 and 26,600 tons of NOx over the lifetime of the projects, Statewide.

C. Moyer Program

In addition to funding on-road incentives, the Moyer Program provides monetary grants to reduce emissions from off-road equipment such as construction and agricultural equipment, marine vessels and locomotives, forklifts, TRUs, SORE, and airport ground support equipment.

D. Goods Movement Emission Reduction Program (Prop 1B)

As discussed earlier, Proposition 1B was a \$1 billion partnership between CARB and local agencies, air districts, and seaports to quickly reduce air pollution emissions and health risk from freight movement along California's trade corridors. Over the course of six years, the program has upgraded ships at-berth, cargo handling equipment, locomotives, TRUs, and harbor craft.

### Conclusion

In conclusion, CARB has implemented the most comprehensive mobile source emissions control program in the nation. CARB's mobile source control program, including the recently adopted CARB State SIP

Strategy Measures listed in Table 4-4, below, is robust and targets all sources of emissions through a fourpronged approach.

Recently Adopted State SIP Strategy
Measures
On-Road Heavy-Duty
Advanced Clean Fleets Regulation
On-Road Light-Duty
Advanced Clean Cars II
Clean Miles Standard
Off-Road Equipment
Amendments to the In-Use Off-Road Diesel-
Fueled Fleets Regulation
Commercial Harbor Craft Amendments
Transport Refrigeration Unit Part I
Zero-Emission Forklift Regulation
Primarily-Federally and Internationally
Regulated Sources – CARB Measures
In-Use Locomotive Regulation

TABLE 4-4
RECENTLY ADOPTED CARB STATE SIP STRATEGY MEASURES

First, increasingly stringent emissions standards drive the use of the cleanest available engines and equipment, and minimize emissions from new vehicles and equipment. Second, to speed the turnover of older, dirtier engines and equipment to cleaner new equipment, in-use programs target emissions from the existing fleet by requiring vehicle and fleet owners to transition legacy fleets and vehicles to the cleanest vehicles and emissions control technologies. Third, incentive programs help fleet owners to replace older, dirtier vehicles and equipment with the cleanest technologies, while also facilitating the development of the next generation of clean technologies that are needed to meet future air quality targets. Finally, cleaner fuels minimize emissions from all combustion engines being used across the State. This multi-faceted approach has not only spurred the development and use of increasingly cleaner technologies and fuels, it has also provided significant emission reductions across all mobile source sectors that go far beyond national programs or programs in other states.

# U.S. EPA's Adopted Clean Trucks Rule

Effective March 27, 2023, the U.S. EPA adopted a final rule titled "Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards."<sup>31</sup> This rule is part of the U.S. EPA's Clean Trucks Plan (CTP) that aims to reduce ozone and PM2.5 air pollution from heavy-duty trucks and buses. The rule applies to manufacturers of heavy-duty engines and vehicles. It will result in lower NOx emissions from new heavy-duty vehicles beginning in model year (MY) 2027 by setting more stringent emission standards that cover a wider range of heavy-duty engine operating conditions and require those standards to be met for a longer period of time of when these engines operate on the road. The rule also changes key provisions of the existing heavy-duty vehicle emission control program, such as the test procedures, regulatory useful life, emission-related warranty, and other requirements. U.S. EPA's CTP will result in emission benefits by 2031 and South Coast AQMD includes those benefits as a line item adjustment to the baseline emissions (see Table 4-5).

# **Overall Emission Reductions**

Table 4-5 identifies projected reductions for the Coachella Valley based on the summer planning inventory for VOC and NOx in 2031. These reductions reflect additional reductions from recently adopted rules and regulations by South Coast AQMD, CARB and U.S. EPA. The corresponding reductions in the South Coast Air Basin are provided in Chapter 3, Table 3-3.

	NOx	VOC
Year 2031 Baseline	10.61	11.79
Emission Reductions:	·	·
Recently Adopted Stationary Source Rules		
Rules Affecting Non-RECLAIM Sources	0.01	-
RECLAIM Landing Rules	-	-
Recently Adopted Stationary Source Rules	0.01	=
Recently Adopted CARB's Mobile Source Regulations	3.27	0.22
U.S. EPA's Clean Trucks Rule	0.14	-
Total Reductions	3.42	0.22
2031-Remaining Emissions in the 2031 Attainment	7.19	11.57
<u>Scenario</u>		

#### TABLE 4-5 EMISSION REDUCTIONS IN COACHELLA VALLEY FOR 2031 (TONS PER DAY)

<sup>&</sup>lt;sup>31</sup> U.S. EPA, Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards, 88 Fed. Reg. 4296 (January 24, 2023). <u>https://www.federalregister.gov/documents/2023/01/24/2022-27957/control-of-air-pollution-from-new-motor-vehicles-heavy-duty-engine-and-vehicle-standards</u>

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 5 – FUTURE AIR QUALITY** 

## **Future Air Quality**

# **Ozone Modeling Approach**

The Coachella Valley Planning Area is defined, for the purposes of this Plan, as the desert portion of Riverside County in the Salton Sea Air Basin (SSAB), and is part of the South Coast AQMD, which also includes the South Coast Air Basin. The Coachella Valley is the most populated area in this desert region, which encompasses several communities, including Palm Springs, Desert Hot Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Thermal, and Mecca. For modeling purposes, the modeling domain outlined in green in Figure 5-1 includes the southern half of California that extends past the border with Mexico in the south, to Kern County in the north, and to the border with Nevada and Arizona to the east. After the reclassification of the Coachella Valley to extreme nonattainment for the 2008 8-hour ozone NAAQS, the new attainment date is July 20, 2032, which effectively requires demonstrating attainment in year 2031. Thus, ozone concentrations were simulated for the 2018 base year and the future attainment year of 2031 to demonstrate that the Coachella Valley will attain the 2008 8-hour ozone standard in 2031 and presented in this Chapter.



#### FIGURE 5-1 MODELING DOMAINS FOR THE MODELING OF OZONE IN THE COACHELLA VALLEY

# **Design Values**

A design value is a statistic that describes the air quality status of a given location relative to the level of NAAQS. Design values are defined to be consistent with the individual NAAQS as described in 40 CFR Part 50.<sup>32</sup> For the 2008 8-hour ozone standard, the design value for a given year is defined as the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations from that year and the two preceding years. Daily maximum 8-hour average ozone is referred to as MDA8 in this document. If a design value is 75.9 ppb or lower, an area is in attainment for the 2008 8-hour ozone standard. While a design value uses a three-year period, the 5-year weighted design values are used in the modeled attainment demonstration per the U.S. EPA's guidance.<sup>33</sup> This is calculated based on the average of three 3-year design

<sup>&</sup>lt;sup>32</sup> Title 40 Code of Federal Regulations Part 50. <u>http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr50 main 02.tpl</u>

<sup>&</sup>lt;sup>33</sup> U.S. EPA, Modeling guidance for demonstrating air quality goals for ozone, PM2.5, and regional haze, 2018. <u>https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling\_guidance-2018.pdf</u>

values. The U.S. EPA guidance recommends the use of multiple year averages of design values, where appropriate, to dampen the effects of single year anomalies in the air quality trend due to factors such as adverse or favorable meteorology or radical changes in the local emissions profile. In the current attainment demonstration, the same base year design values as in the 2022 AQMP are used. These design values are based on a 5-year weighted average centered on 2017, whereas the base year for emissions and meteorology selected for this attainment demonstration is 2018. During 2018, the Multiple Air Toxics Exposure Study (MATES V) was conducted and involved a comprehensive campaign of monitoring and modeling that allowed for the development of a robust and extensively validated modeling framework. However, the period for the 5-year weighted average design value (2015-2019) was centered on 2017 to avoid the anomalies caused by the effects of COVID-19, widespread wildfire events on emissions and resulting air quality in 2020. Table 5-1 presents the 5-year weighted design values used in this Plan for the Coachella Valley stations, which are the same values shown in Table 7-13 in Chapter 7 of the 2022 AQMP.

TABLE 5-1 FIVE-YEAR WEIGHTED DESIGN VALUES FOR THE PERIOD 2015-2019 FOR THE MONITORING STATIONS IN THE COACHELLA VALLEY

Station	2018 5-Year Weighted Design Value (ppb)
Palm Springs	89.3
Indio	84.3

# **Ozone Modeling**

The ozone modeling employs the same modeling platform as in the recently approved PM2.5 Plan attainment demonstrations, with updates in the modeling platform, input databases, and emissions inventory. This is an upgrade from the modeling platform used in the 2022 AQMP. The year 2018 was used as base year to develop meteorological conditions and an emissions inventory that are used as an anchor year to project future emissions and design values. While the U.S. EPA's guidance recommends using the center year of the five years (2015 to 2019) for the weighted design value as the base year for the modeling and emissions inventory, the guidance states that any one of the five years can be used as the base year. Year 2018 was chosen to avoid unusual meteorological conditions, which occurred with the high frequency of stagnant dispersion conditions observed during the ozone season in 2017. In addition, choosing 2018 as baseline modeling year provides an advantage of the rich measurement dataset collected during the MATES V, which was conducted from May 2018 to April 2019.

The Community Multiscale Air Quality (CMAQ) model, version 5.3.1, was employed to simulate the ozone season that spanned from May 1 through September 30, 2018. Meteorological inputs were generated using the Weather Research Forecast (WRF) model version 4.4.2, and biogenic VOC emissions were

estimated using MEGANv3. The simulations included 3672 consecutive hours from which daily maximum 8-hour average ozone concentrations were calculated.

Boundary conditions for ozone modeling were developed for the PM2.5 Plan<sup>34</sup> and details of the methodology are included in its Appendix II. In short, modeled air pollutant concentrations obtained from the Community Atmosphere Model with Chemistry (CAM-chem; Emmons et al., 2020),<sup>35</sup> with a 1.25<sup>o</sup> x 0.9<sup>o</sup> resolution, are used to provide the boundary conditions for a CMAQ modeling domain that encompasses the whole state of California and neighboring states at 12 km resolution, depicted in red in Figure 5-1. The 4-km CMAQ modeling domain for this plan is then nested within the outer 12-km statewide domain, and the results from the 12-km modeling domain serve as boundary conditions for the 4-km domain depicted in Figure 5-1. The boundary conditions for the 2031 attainment simulations are generated by running the 12-km domain with domain-wide emissions scaled down to 2031 levels. The 4-km resolution inner domain is placed close to the southern boundary of the outer domain, which is not the most desirable to avoid potential artifacts from the boundary; however, the placement was determined by available model-ready emissions data in Mexico.

### Model Performance Evaluation

Model performance was evaluated against the measured ozone concentrations. Figure 5-2 depicts the comparison of daily MDA8 for Palm Springs and Indio stations. In general, the model prediction shows good agreement with measurements, with a slight tendency to underestimate the peak ozone days. Overall, the model shows a slight positive bias during the May to September ozone season for Palm Springs and a slight negative bias for Indio. Statistics for both sites are presented in Table 5-2. Model performance for those sites is comparable to performance presented in Appendix V of the 2022 AQMP for all the monitors in the South Coast Air Basin, and within the error margins reported in peer-reviewed journals.<sup>36</sup> The U.S. EPA guidance requires that the model predictions be applied in a relative rather than absolute sense using Relative Reduction Factor (RRF). With this approach, potential biases present in model prediction are less likely transferred to future design values.

<sup>&</sup>lt;sup>34</sup> South Coast AQMD, South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard, June 2024. <u>https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-(sip)-revisions/2012-annual-pm2-5-plan</u>

<sup>&</sup>lt;sup>35</sup> Emmons, L. K., Schwantes, R. H., Orlando, J. J., Tyndall, G., Kinnison, D., Lamarque, J.-F., et al., (2020). The Chemistry Mechanism in the Community Earth System Model version 2 (CESM2). Journal of Advances in Modeling Earth Systems, 12, e2019MS001882, <u>https://doi.org/10.1029/2019MS001882</u>

<sup>&</sup>lt;sup>36</sup> Appel K.W. et al., 2021. The Community Multiscale Air Quality (CMAQ) model versions 5.3 and 5.3.1: system updates and evaluation, Geosci. Model Dev., 14, 2867–2897, <u>https://doi.org/10.5194/gmd-14-2867-2021</u>

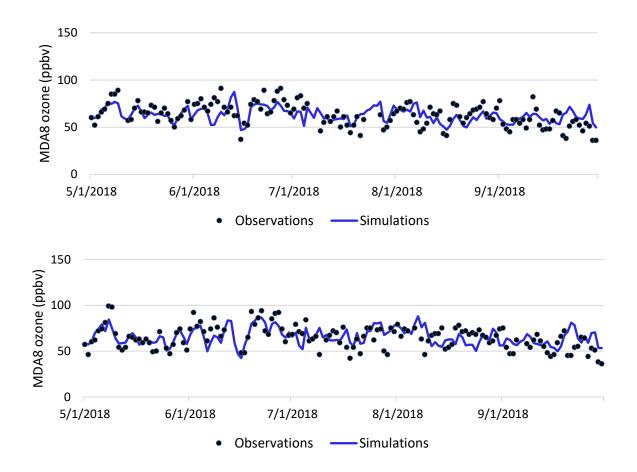


FIGURE 5-2 MODELED AND OBSERVED MDA8 OZONE AT INDIO (TOP) AND PALM SPRINGS (BOTTOM) FROM MAY 1 THROUGH SEPT 30, 2018

Station	Mean Observation (ppbv)	Mean Modeled (ppbv)	Mean Bias (ppbv)	Mean Error (ppbv)	Normalized Mean Bias (%)	Normalized Mean Error (%)	R
Indio	63.06	62.82	-0.25	8.30	-0.39	13.16	0.52
Palm Springs	64.78	65.61	0.83	9.00	1.28	13.89	0.50

TABLE 5-2MODEL PERFORMANCE FOR MDA8 OZONE FOR THE BASE YEAR 2018

### Future Ozone Air Quality

The CMAQ-WRF modeling system was used to predict future design values in the 2031 attainment year. Two simulations for the attainment year of 2031 were conducted: 1) 2031 baseline, and 2) 2031 attainment. The emissions for the 2031 baseline are identical to those included in the 2022 AQMP, reflecting reductions anticipated from the rules and regulations adopted by the time when the 2022 AQMP was developed. Chapter 3 of this Plan provides more details on the rules reflected in the baseline and those adopted after the development of the 2022 AQMP. The emissions for the 2031 attainment scenario include regulations recently adopted by CARB, U.S. EPA and the South Coast AQMD. Chapter 3 and Table 3-3 of this Plan provide more details.

Future year design values are determined using site-specific RRFs applied to the 5-year weighted ozone design values shown in Table 5-1, per the U.S. EPA guidance. The RRFs are calculated using the average of the top 10 high ozone days in the modeled base year, taking corresponding modeled future year concentrations of the same 10 days, and calculating the ratio of the future top 10-day concentration average to the base year top 10-day concentration average at each specific monitor. The resulting monitor-specific RRFs are applied to the base year 5-year weighted ozone design values to calculate future design values at each monitor. Results presented in Table 5-3 show that the Coachella Valley is projected to have 8-hour ozone design values exceeding 75 ppb under the 2031 baseline, i.e., business-as-usual scenario. However, the Coachella Valley is projected to attain the 2008 federal 8-hour ozone standard in 2031 with additional reductions from the recently adopted regulations.

TABLE 5-3 DESIGN VALUES IN THE COACHELLA VALLEY FOR IN THE ATTAINMENT DEMONSTRATION SCENARIO

Station	Future Desig	n Value (ppb)
Station	Baseline 2031	Attainment 2031
Palm Springs	76.5	74.4
Indio	76.7	74.2

### **Unmonitored Area Analysis**

The U.S. EPA modeling guidance recommends that the attainment demonstration include a formal analysis to confirm that all modeling grid cells within a nonattainment area meet the federal standard. This analysis uses both measured design values and modeled ozone concentrations throughout the modeling domain to estimate design values at unmonitored locations. Five-year weighted design values are calculated for all monitoring stations within the modeling domain for the 2015 to 2019 period, including monitoring

stations outside of the Coachella Valley. Only stations that meet the U.S. EPA's data completeness requirement for each of the 5 years are included in the analysis. The ozone concentrations at unmonitored areas are calculated using the equation shown below. The equation uses inverse distance weighting and model gradient adjustment so that monitors nearest to the unmonitored location carried the greatest weight, while using the model predictions to inform the gradient between monitors. This method is consistent with U.S. EPA's guidance. Figure 5-3 illustrates the spatial distribution of 8-hour ozone 5-year weighted design values calculated using the model gradient adjustment method for 2018.

$$Gridcell_{E} = \sum_{i=1}^{n} Weight_{i} \cdot Monitor_{i} \cdot \frac{Model_{E}}{Model_{i}}$$

Where:

Gridcell<sub>E</sub> is the ozone concentration at unmonitored site E;

*Weight*<sub>i</sub> is the inverse distance weight for monitor *i*;

*Monitor*<sub>i</sub> is the 5-year weighted design value at monitor *i*;

*Model*<sub>E</sub> is the average of the 10 highest daily 8-hour values at site E;

*Model*<sub>i</sub> is the average of the 10 highest daily 8-hour values at monitor *i*.

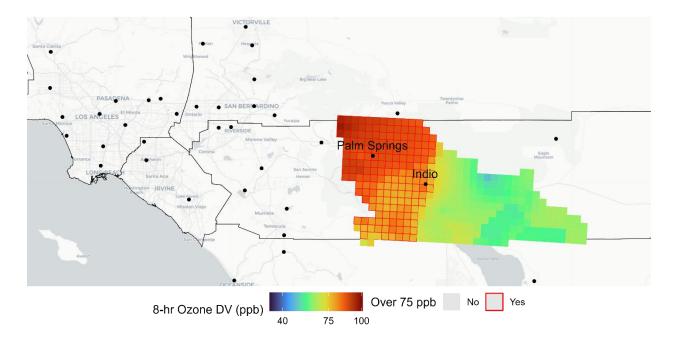
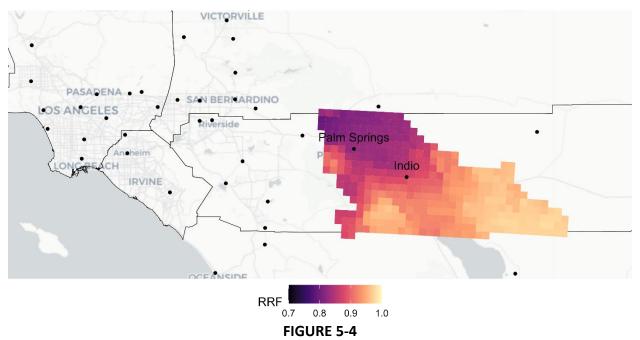
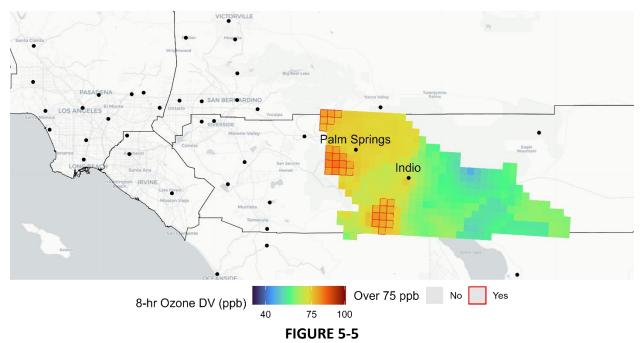


FIGURE 5-3 BASE YEAR 2018 OZONE DESIGN VALUES IN COACHELLA VALLEY. CELLS EXCEEDING 75 PPB ARE OUTLINED IN RED. MONITORING STATIONS ARE SHOWN AS BLACK CIRCLES

Future concentrations in unmonitored areas are also calculated using modeled RRFs. The top 10 days of which MDA8 is greater than or equal to 60 ppb are used in the RRF. Following U.S. EPA's modeling guidance, RRFs are still calculated if at least 5 out of top 10 days have its MDA8 ozone greater than or equal to 60 ppb. The RRFs are then applied to the interpolated measurement field for 2018 to calculate future year design values in all areas of the Coachella Valley. For the attainment year 2031, RRFs are shown in Figure 5-4, along with the design values for same attainment scenario in Figure 5-5.



ATTAINMENT YEAR 2031 RELATIVE REDUCTION FACTORS IN COACHELLA VALLEY



OZONE DESIGN VALUES IN THE 2031 ATTAINMENT SCENARIO IN COACHELLA VALLEY. CELLS EXCEEDING 75 PPB ARE OUTLINED IN RED. MONITORING STATIONS ARE SHOWN AS BLACK CIRCLES

While ozone concentrations are projected to meet the 2008 ozone NAAQS at the two monitoring stations and in most areas in the Coachella Valley, high ozone levels are evident in the western part. As shown in Figure 5-6A, most unmonitored areas that exceed 75 ppb are in high-elevation areas, with a median altitude of over 1,500 meters, compared to approximately 500 meters for the other areas with 75 ppb or lower. Those areas are characterized by steep terrain, where meteorology and air quality predictions exhibit the highest uncertainties. Furthermore, the areas with future ozone design values higher than 75 ppb within the Coachella Valley are heavily affected by boundary values, as shown in Figure 5-6B. Sensitivity runs indicate that nearly 90 percent of the ozone in high ozone areas originates from the modeling boundaries or further beyond. Although boundary contributions are somewhat high throughout the Coachella Valley, mean contributions among cells exceeding the 75 ppb standard are 6 percentage points greater than the cells below 75 ppb (p < .00005). In combination, a large proportion of unmonitored areas exceeding 75 ppb are located at high elevations and are heavily affected by boundary values. This might be attributed to stronger winds at higher altitudes, which quickly transport boundary values to the modeling domain before they get adjusted to the emissions and meteorological conditions within the domain.

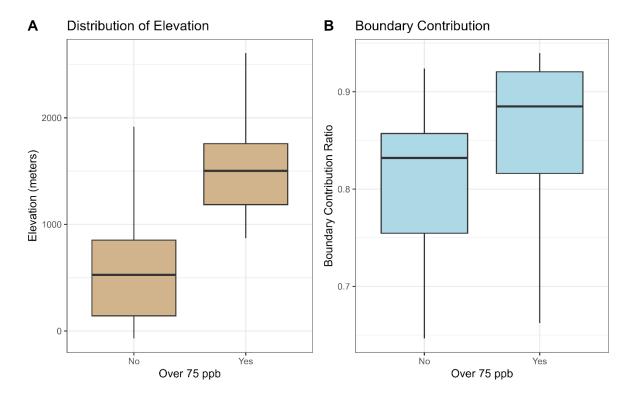


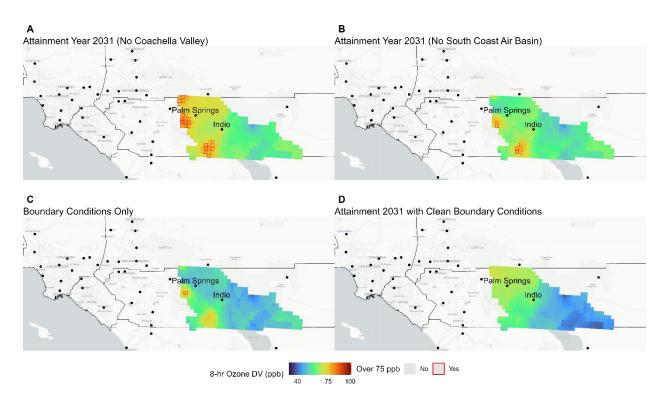
FIGURE 5-6 (A) COMPARISON OF ELEVATION DISTRIBUTION AMONG GRID CELLS ABOVE VS. BELOW THE 75 PPB, AND (B) CORRESPONDING BOUNDARY VALUES

The lateral boundary conditions are derived from its outer domain with 12-km grid resolution. The boundaries for the outer domain were derived from the CAM-chem model, with a  $1.25^{\circ} \times 0.9^{\circ}$  resolution. This coarse resolution of the global model contributes to the uncertainty in the boundary values. In particular, the inner domain's southern boundary is placed close to the outer domain's southern boundary, which impacts the performance of the model around those regions. While model performances with respect to observations in the South Coast Air Basin and the Coachella Valley are generally great, the performance declines substantially for locations close to the southern boundary as evident at Calexico and El Centro presented in Appendix III.

The following sensitivity air quality simulations were conducted to further analyze the contributions of local and external sources of pollution to the overall air quality in the region:

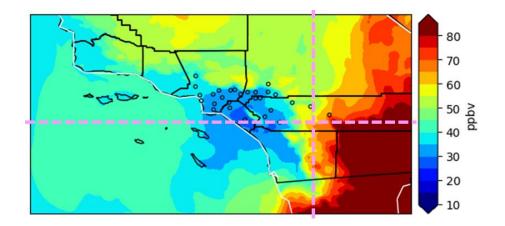
- Attainment scenario for 2031 with zero emissions from the Coachella Valley: this simulation is designed to estimate the contribution of local emissions to the local air quality. As shown in Figure 5-7A, removing all anthropogenic emissions from Coachella Valley does not significantly affect the concentrations in the western part of the valley, and many unmonitored areas remain above the standard.
- 2) Attainment scenario for 2031 with zero emissions from the South Coast Air Basin: this simulation is designed to estimate the contribution of emissions from the South Coast Air Basin, which is upwind of the Coachella Valley. As shown in Figure 5-7B, removing all anthropogenic emissions from the South Coast Air Basin reduces the areas exceeding 75 ppb, but does not eliminate them all. This simulation also shows that air quality in the Coachella Valley is substantially more affected by emissions from the South Coast Air Basin than from local emissions, and that progress in curbing ozone precursors in the South Coast Air Basin will contribute to improve ozone in the Coachella Valley.
- 3) Future scenario for 2031 with no anthropogenic or biogenic emissions: this simulation is designed to determine the contribution of sources outside of the modeling domain, which include emissions from Mexico. As shown in Figure 5-7C, even with no direct air pollutant emissions in the modeling domain, concentrations in the western part of Coachella Valley are projected to remain high and even exceed 75 ppb at one modeling grid cell. As discussed above, those are mountainous areas where ozone concentrations remain insensitive to reduced NOx emissions. Instead, high ozone over these high-elevation areas is attributed to lateral boundary values and transport from aloft. An example of transport from the boundary is presented in Figure 5-8. Elevated concentrations of ozone are transported from the southeastern corner of the domain, and ozone laden airmass aloft as marked by the cross-sections.
- 4) Attainment scenario with clean background conditions: this simulation is designed to demonstrate that all areas in the Coachella Valley would attain the 2008 ozone NAAQS, if background conditions were clean. For this experiment, the 12-km outer domain was simulated with zero anthropogenic emissions to create boundary values files (BCON) for the inner domain. And then, the cleanest concentration column in BCON was assigned to the entire 4-km domain perimeter. Figure 5-9 presents

a comparison of the ozone vertical profiles, averaged over the May-September period, between the boundary values used in the attainment demonstration and the clean background conditions. As shown in Figure 5-7D, the attainment scenario leads to ozone concentrations well below the 2008 ozone NAAQS if no significant transport of ozone and its precursors through lateral boundaries. These results further illustrate the influence of the boundary conditions used in this modeling framework, and that, emission reductions are effective at improving local ozone. The current lateral boundary values, especially along the southern boundary exhibit a large degree of uncertainty as shown in the ground level ozone levels near the boundary. This is partly due to the disparity of grid sizes between CAM-Chem and CMAQ.

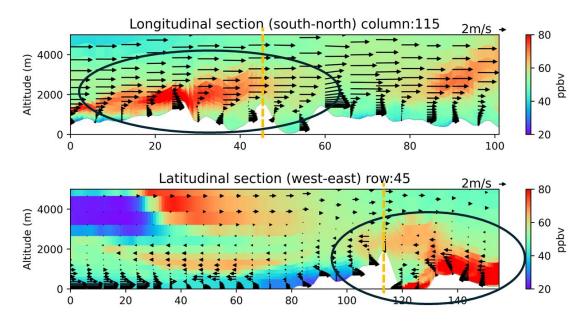


#### FIGURE 5-7

#### SENSITIVITY RUNS, (A) NO EMISSIONS IN COACHELLA VALLEY, (B) NO EMISSIONS FROM THE SOUTH COAST AIR BASIN, (C) NO ANTHROPOGENIC EMISSIONS WITHIN THIS DOMAIN, AND (D) CLEAN BOUNDARY CONDITIONS



Hourly O3 2018-06-13 06 PST (No Anthro. No Bio. 2018)





EXAMPLE OF OZONE TRANSPORT EVENT FROM THE SOUTHERN BOUNDARY (TOP) AND CROSS SECTION OF OZONE CONCENTRATION ALONG THE CROSS-SECTIONS HIGHLIGHTED (BOTTOM)

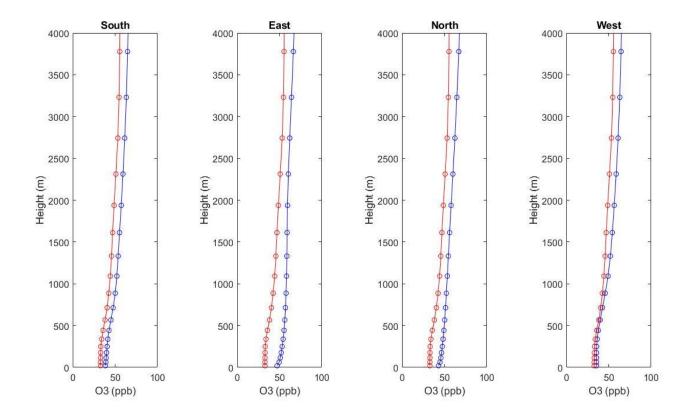


FIGURE 5-9 COMPARISON OF VERTICAL PROFILES OF THE OZONE BOUNDARY VALUES, AVERAGED OVER THE PERIOD MAY-SEPTEMBER, BETWEEN BASELINE 2031 (BLUE) AND CLEAN (RED) BOUNDARY CONDITIONS

In summary, ozone sensitivity analyses reveal that ozone design values in unmonitored areas are predominantly influenced by the boundary conditions. These conditions represent air masses being transported from outside the modeling domain, like pollution coming from Mexico and other regions, but not originated from the South Coast Air Basin. The areas less responsive to changes in local emissions from the Coachella Valley and nearby basins are primarily situated at high elevations in steep terrain, where meteorology and air quality model uncertainties typically increase. When cleaner boundary conditions are applied, the Coachella Valley is more sensitive to emission reductions within the Valley and the upwind basin, and the entire Coachella Valley is expected to attain the standard. In conclusion, despite the uncertainties inherent in projecting ozone levels in the western part of the Coachella Valley, modeling indicates that vast majority of the Coachella Valley, including highly populated areas will meet the 2008 ozone NAAQS in 2031 with the emission reductions proposed in this Plan.

# Ozone Sensitivity to NOx and VOC Emissions

Additional sensitivity simulations were conducted to understand the sensitivity of ozone to local sources of emissions. These sensitivity simulations incorporated changes in ozone precursor emissions within the Coachella Valley only, not in the South Coast Air Basin or other areas in the modeling domain. Two sensitivity runs were conducted where VOC and NOx emissions within the Coachella Valley boundary were reduced by 39 percent, respectively, from the base year of 2018. U.S. EPA requires Reasonable Further Progress to achieve approximately 3 percent VOC emission reductions per year until attainment. In the case of this Plan, cumulative reductions of ozone precursors required over the 13-year period that spans from base year, 2018 to attainment year, 2031 would be 39 percent. These sensitivity simulations were used to develop RRFs and design values following the same methodology utilized in the attainment demonstration, where the sensitivity simulation results were treated as the future year predictions in the RRF equation.

The design value of the sensitivity cases is calculated as follows:

 $DV_{Sensitivity\ case} = DV_{Base\ year} \times \frac{Ozone\ Predictions\ in\ Sensitivity\ Case}{Ozone\ Predictions\ in\ Base\ Year}$ 

where ozone predictions in the base year correspond to the top 10 days selected based on the highest 8-hour ozone value in a 3-by-3 cell grid centered at each monitor in the base case, per U.S. EPA's modeling guidance. Ozone predictions in the sensitivity case are based on the same days and 3-by-3 cell grid selection as in the base year.

Table 5-4 summarizes the design values calculated for the 39 percent NOx and VOC sensitivity simulations. At both sites in the Coachella Valley, the ratio of the change in ozone design value to the NOx emissions change ( $\Delta O3/\Delta NOx$ ) is greater than that of the VOC emissions change ( $\Delta O3/\Delta VOC$ ). This indicates that local NOx reductions are far more effective than VOC at reducing ozone.

TABLE 5-4 SENSITIVITY OF OZONE TO CHANGES IN NOX AND VOC EMISSIONS FROM THE COACHELLA VALLEY

Site	2018 Average DV (ppb)	DV after 39 percent NOx Reductions (ppb)	∆DV/∆NOx (ppb/tpd)	DV after 39 percent VOC Reductions (ppb)	∆DV/∆VOC (ppb/tpd)				
Indio	84.3	82.4	0.25	84.2	0.03				
Palm Springs	89.3	87.5	0.23	89.2	0.03				

# Weight of Evidence

The ozone design value in the Coachella Valley declined by 21 percent over the last 20 years, as shown in Figure 5-10. However, the progress has slowed down in the last 10 years or so, despite the continuous reductions in ozone precursors emissions in both the Coachella Valley and the South Coast Air Basin. Factors that may have contributed to the slowdown in the ozone trends include unfavorable meteorological conditions, its impact on vegetation and atmospheric dispersion and chemistry, and changes in chemical regimes that have rendered precursor emission reductions less effective at reducing ozone.<sup>37</sup> As discussed in the previous section, the ozone levels in the Coachella Valley are closely tied to those of the South Coast Air Basin. Without substantial improvements in ozone concentration in the South Coast Air Basin, the Coachella Valley would not achieve significant progress. Considering the historical ozone trend, the rate of progress in recent years in the Coachella Valley, relatively stagnant ozone levels in the South Coast Air Basin and uncertainties in photochemical transport modeling, 2031 is the most expeditious year to commit attainment of the 2008 ozone NAAQS. However, the continued implementation of the NOx strategy outlined in the 2022 AQMP would further ensure the Coachella Valley's timely attainment of the 2008 ozone NAAQS, if not earlier attainment.

<sup>&</sup>lt;sup>37</sup> Interpreting recent trends in ozone and its precursors in the South Coast Air Basin. Presentation by the California Air Resources Board during the Mobile Source Committee meeting on April 22, 2022. https://www.aqmd.gov/docs/default-source/Agendas/Mobile-Source/msc-agenda-041522.pdf

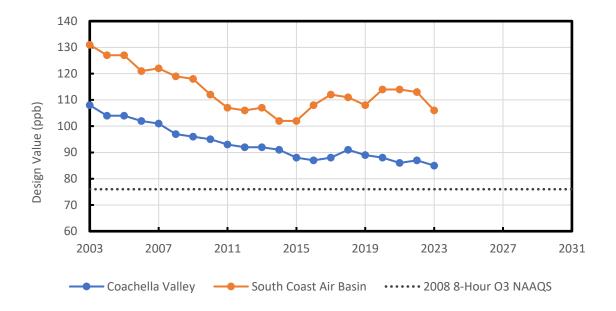


FIGURE 5-10 TRENDS IN THE 8-HOUR OZONE DESIGN VALUES IN THE COACHELLA VALLEY AND THE SOUTH COAST AIR BASIN FROM 2003-2023

### Conclusion

Recent air quality trends and the updated modeling analysis in this Plan indicate that the Coachella Valley is on track to attain the ozone air quality standard by the new attainment year of 2031 based on the ongoing implementation of already adopted regulations for stationary, on-road mobile and off-road mobile sources in the South Coast Air Basin and the Coachella Valley. <u>With the emission reductions proposed in this Plan, Palm Springs and Indio are expected to have 74.4 and 74.2 ppb, respectively, which are in attainment level of the 2008 8-hour ozone standard. The Coachella Valley located downwind of the South Coast Air Basin will continue to benefit from the rigorous control programs and associated emission reductions in the South Coast Air Basin. In addition, South Coast AQMD is committed to transition to zero emission technologies, where feasible and low NOx technologies for the rest as outlined in the 2022 AQMP, which will further ensure the Coachella Valley to attain the 2008 8-hour ozone NAAQS in 2031, if not earlier.</u>

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 6 – FEDERAL CLEAN AIR ACT REQUIREMENTS** 

# **Other Federal Clean Air Act Requirements**Introduction

The Coachella Valley is in nonattainment of the 2008 8-hour ozone NAAQS. The Coachella Valley was reclassified from "severe" to "extreme" nonattainment effective April 7, 2023 with a new attainment date of July 20, 2032.<sup>38</sup> As a result of the reclassification, a revision to the SIP is required to address "extreme" nonattainment area requirements (see Table 6-1) and to demonstrate attainment by the new attainment deadline. The Coachella Valley Ozone Plan seeks to fulfill those requirements.

Requirement	CAA Section	Definition	Location in
			Plan
Emissions	172(c)(3)	A comprehensive, accurate, current	Chapter 3
Inventory		inventory of actual emissions from all	
		sources of the relevant pollutant or	
		pollutants.	
Control Strategy	172(c)(6)	Enforceable commitments and control	Chapter 4
		measures, as well as schedules and	
		timetables for compliance to ensure	
		attainment.	
RACM/RACT	172(c)(1),	Provisions to ensure that Reasonably	Chapter 6
	182(b)(2)	Available Control Technology (RACT) are	
		implemented no later than 5 years after	
		designation, and a demonstration that the	
		control strategy includes all Reasonable	
		Available Control Measures (RACM) to	
		ensure attainment as expeditiously as	
		practicable and to meet any Reasonable	
		Further Progress (RFP) requirements.	
Attainment	182(c)(2)(A),	Attainment date shall be as expeditiously as	Chapter 5
Demonstration	182(e)	practicable but no later than the twentieth	
		year after designation as nonattainment.	
Reasonable	172(c)(2),	A demonstration of RFP compliance.	Chapter 6
Further	182(c)(2)(B),		
Progress	182(g)		
Transportation	176(c)	Plan provisions addressing transportation	Chapter 6
Conformity		conformity, including motor vehicle	

TABLE 6-1FEDERAL CLEAN AIR ACT REQUIREMENTS FOR THE COACHELLA VALLEY OZONE PLAN

<sup>38</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley Ozone Nonattainment Area; Reclassification to Extreme, 88 Fed. Reg. 14291 (March 8, 2023). <u>https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-planning-purposes-california-coachella-valley-ozone</u>

Requirement	CAA Section	Definition	Location in Plan
		emissions budgets for RFP milestone years and the attainment year.	
Vehicle Miles Travelled (VMT) Offset Demonstration	182(d)(1)(A)	Provisions to offset growth in emissions due to growth in VMT through the implementation of transportation control strategies and transportation control measures (TCMs).	Chapter 6
Clean Fuels for Fleets	182(c)(4)(A)	For fleets of 10 or more vehicles, a demonstration of compliance with federal emission standards or a substitute program that achieves equivalent or greater emission reductions.	Chapter 6
Enhanced Vehicle Inspection and Maintenance (I/M)	182(c)(3)	A program requiring vehicle emission control systems to be inspected and repaired if a malfunction is identified.	Chapter 6
New Source Review	172(c)(5), 173, 182(e)(2)	A program requiring permits and emission offsets for the construction and operation of new and modified major stationary sources of VOC or NOx.	Chapter 6
Emissions Statement	182(a)(3)(B)	A requirement for owners and operators of stationary sources to submit an annual inventory of VOC and NOx emissions for the source.	Chapter 6
Clean Fuels for Boilers	182(e)(3)	A requirement that boilers burn clean fuels or use advanced control technology.	Chapter 6
NOx Requirements	182(f), 182(e)(1)	A requirement that major stationary source requirements for VOC also apply to NOx.	Chapter 6
Nonattainment Fees	185	Provisions to require major stationary sources to pay an annual fee if Coachella Valley fails to attain the standard by the attainment date.	Chapter 6

Requirement	CAA Section	Definition	Location in Plan
Contingency Measures	172(c)(9), 182(c)(9)	Fully adopted rules or control measures that are ready to be implemented, should U.S. EPA issue a final rule that the Coachella Valley failed to meet a regulatory requirement necessitating implementation of a contingency measure. Contingency measures must take effect without significant additional action by the state or local agency or by U.S. EPA.	Chapter 6

The Coachella Valley is also in "extreme" nonattainment for the 1997 8-hour ozone NAAQS, and South Coast AQMD's Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard already addressed applicable federal Clean Air Act (CAA) Section 182 requirements for "extreme" nonattainment areas.<sup>39</sup> For example, the major stationary source threshold reflected in South Coast AQMD's rules for Coachella Valley has already been lowered to 10 tons per year of VOC and NOx as required under CAA Section 182(e). For other requirements, updates to previous analyses are needed to account for new information. Each of these requirements are evaluated in detail below.

## **Reasonable Further Progress**

The CAA requires that "extreme" nonattainment areas demonstrate RFP towards attainment through emission reductions phased in from the base year until the attainment date. The RFP requirements in the CAA are intended to ensure that there are sufficient precursor emission reductions to attain the ozone NAAQS by the applicable attainment date.

Per CAA Section 171(1), RFP is defined as "such annual incremental reductions in emissions of the relevant air pollutant [...] for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date." The goal of RFP is to demonstrate steady progress in emission reductions between the base year and attainment date, which ensures that areas will begin lowering air pollution in a timely manner and will not delay implementation of control programs until immediately before the

<sup>&</sup>lt;sup>39</sup> South Coast AQMD, Final Coachella Valley Extreme Area Plan for 1997 8-Hour Ozone Standard, December 2020. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/2-final-coachella-valley-extreme-area-plan-for-1997-8-hour-ozone-standard.pdf?sfvrsn=6</u>

attainment deadline. When assessing RFP compliance, U.S. EPA states that the plan should rely only on emission reductions achieved from sources within the nonattainment area.<sup>40</sup>

Section 172(c)(2) of the CAA requires that attainment plans show ongoing annual incremental emission reductions toward attainment, which is commonly expressed in terms of benchmark emissions levels or air quality targets to be achieved by certain interim milestone years. There are two separate RFP requirements for ozone nonattainment areas depending upon their classification. CAA sections 182(b)(1) and 182(c)(2)(B) contain specific emission reduction targets to ensure that each ozone nonattainment area provides for sufficient precursor emission reductions to attain the ozone standard. CAA Section 182(b)(1)(A) requires that each "moderate" or above nonattainment area provide for VOC reductions of at least 15 percent from baseline emissions within six years after November 15, 1990. U.S. EPA's implementation rule for the 2008 ozone standard states that if an area has already met the 15 percent requirement for VOCs under either the 1-hour ozone NAAQS or the 1997 ozone NAAQS, such requirement under CAA Section 182(b)(1) would not have to be fulfilled again.<sup>41</sup> Instead, such areas would need to meet the CAA requirements under Section 182(c)(2)(B), which requires that "serious" and above areas provide VOC and/or NOx reductions (CAA Section 182(c)(2)(C)) of 18 percent over the first six years after the RFP base year for the 2008 8-hour ozone NAAQS, and an additional 3 percent per year averaged over each consecutive 3-year period until the attainment date. In 1997, U.S. EPA approved a 15 percent VOC-only rate of progress demonstration for the 1-hour ozone standard in the South Coast Air Basin.<sup>42</sup> As such, the requirement under CAA Section 182(b)(1) to demonstrate a 15 percent reduction in VOCs in the first 6 years has been met for the Basin.

For the 182(c)(2)(B) RFP requirement, U.S. EPA guidance allows for substitution of NOx reductions for VOC reductions to demonstrate the annual 3 percent reductions of ozone precursors if it can be demonstrated that the substitution yields equivalent ozone reductions.<sup>43</sup> Additional U.S. EPA guidance states that certain conditions are needed to use NOx substitution in an RFP demonstration.<sup>44</sup> First, an equivalency demonstration must show that cumulative RFP emission reductions are consistent with the NOx and VOC emission reductions determined in the ozone attainment demonstration. Second, the reductions in NOx and VOC emissions should be consistent with the continuous RFP emission reduction requirement. U.S. EPA states that "Any combination of VOC and NOx emission reductions which totals 3 percent per year and

https://www.federalregister.gov/documents/2015/03/06/2015-04012/implementation-of-the-2008-nationalambient-air-quality-standards-for-ozone-state-implementation

<sup>44</sup> U.S. EPA, NOx Substitution Guidance, December 1993.

<sup>&</sup>lt;sup>40</sup> U.S. EPA, Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements, 80 Fed. Reg. 12264 (March 6, 2015).

<sup>&</sup>lt;sup>41</sup> Ibid.

 <sup>&</sup>lt;sup>42</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; California — Ozone, 62 Fed. Reg. 1150 (January 8, 1997). <a href="https://www.federalregister.gov/documents/1997/01/08/97-144/approval-and-promulgation-of-implementation-plans-california-ozone">https://www.federalregister.gov/documents/1997/01/08/97-144/approval-and-promulgation-of-implementation-plans-california-ozone</a>

<sup>&</sup>lt;sup>43</sup> U.S. EPA, Guidance on the Post-1996 Rate-of-Progress Plan and the Attainment Demonstration, February 18, 1994. <u>https://nepis.epa.gov/Exe/ZyPDF.cgi/P1001E8Z.PDF?Dockey=P1001E8Z.PDF</u>

https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/19931201 oaqps nox substitution guidance.pdf

meets other SIP consistency requirements described in this document are allowed."<sup>45</sup> Photochemical modeling shows that NOx reductions are critical for Coachella Valley to reach attainment and yield more ozone reductions in future years compared to the same percentage of VOC reductions. Additional sensitivity simulations were conducted, demonstrating that NOx reductions are approximately 8 times more effective at reducing ozone compared to VOC reductions at both Palm Springs and Indio. For details, refer to Chapter 5.

While the previously submitted RFP SIP included an RFP demonstration, <sup>46</sup> this Plan updates the demonstration to make it consistent with the attainment demonstration and emissions inventory included in this Plan. As of September 2024, U.S. EPA- has not acted on the RFP portion of the RFP SIP. Tables 6-2 and 6-3 summarize the RFP calculations. Figure 6-2 depicts the target level and projected baseline VOC emissions for the RFP demonstration. The emissions used in the RFP demonstration are consistent with the baseline summer planning emissions, which reflect already adopted rules and regulations (see Appendix I). In order to demonstrate consistency between the RFP demonstration and MVEB, a line-item adjustment is made in the RFP demonstration to account for the differences in the total of the MVEBs which are individually rounded up to the nearest tenth of a ton per day.

In accordance with U.S. EPA guidance for 2008 8-hour ozone standard attainment plans, the emission reductions in the RFP demonstration occur inside the nonattainment area and start from a base year of 2011.<sup>47</sup> For all milestone years, the baseline VOC emission levels are above the target levels. To account for the shortfall in VOC reductions, projected NOx baseline emission reductions are needed to show RFP compliance. Table 6-3 demonstrates that for each of the milestone years, Coachella Valley meets the targets based on reductions from existing regulatory programs using a combination of VOC and NOx reductions. No additional reductions are needed for RFP purposes.

 <sup>&</sup>lt;sup>45</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; California — Ozone, 62 Fed. Reg. 1150 (January 8, 1997). <a href="https://www.federalregister.gov/documents/1997/01/08/97-144/approval-and-promulgation-of-implementation-plans-california-ozone">https://www.federalregister.gov/documents/1997/01/08/97-144/approval-and-promulgation-of-implementation-plans-california-ozone</a>

<sup>&</sup>lt;sup>46</sup> South Coast AQMD, Request to Reclassify Coachella Valley for the 2008 8-Hour Ozone Standard and the Updated Motor Vehicle Emissions Budgets, November 2022. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-guality-management-plans/2022-air-quality-management-plan/cv-mveb/coachella-valley-reclassification-for-the-2008-8-hour-ozone-standard-and-mveb---final-staff-report.pdf?sfvrsn=8</u>

<sup>&</sup>lt;sup>47</sup> U.S. EPA, Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements, 80 Fed. Reg. 12264 (March 6, 2015).

https://www.federalregister.gov/documents/2015/03/06/2015-04012/implementation-of-the-2008-nationalambient-air-quality-standards-for-ozone-state-implementation

Row	Calculation Step <sup>a</sup>	<b>2011</b> <sup>b</sup>	2017	2020	2023	2026	2029	2031
1	RFP Baseline VOC Emissions	16.54	13.62	13.63	12.77	12.35	11.94	11.79
<u>2</u>	MVEB Rounding Margin	-	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.06</u>	<u>0.09</u>	<u>0.02</u>
<u>3</u>	Baseline VOC + MVEB Rounding Margin	Ξ	<u>13.62</u>	<u>13.63</u>	<u>12.77</u>	<u>12.41</u>	<u>12.03</u>	<u>11.81</u>
<del>2</del> 4	Required Percent Change Since Previous Milestone Year (%)	-	18	27	36	45	54	60
<del>3</del> 5	Target VOC Level	-	13.56	12.07	10.59	9.10	7.61	6.62
<u>46</u>	Cumulative Milestone Year Shortfall	-	0.06	1.56	2.18	3. <del>25<u>31</u></del>	4. <del>33<u>42</u></del>	5. <del>17<u>19</u></del>
<del>5</del> 7	Cumulative Shortfall in VOC (%)	-	0.3	9.4	13.2	<del>19.7</del> 20.0	26. <del>2</del> 7	31. <del>2</del> 4
<u>68</u>	Incremental Milestone Year Shortfall (%)	-	0.3	9.1	3.8	6. <u>58</u>	6. <del>5</del> 7	<del>5.0<u>4.7</u></del>

 TABLE 6-2

 SUMMARY OF REASONABLE FURTHER PROGRESS CALCULATIONS – VOC

<sup>a</sup> Units are in tons per day (tpd), based on the summer planning inventory unless otherwise noted.

<sup>b</sup> Base Year (2011).

#### Row Description:

- **ROW 1:** RFP baseline emissions used for RFP demonstration; Baseline and Future Emission Inventory taking into account existing rules and projected growth.
- **ROW 2:** Motor Vehicle Emissions Budgets Rounding Margins account for the differences in the on-road mobile source emissions projections in the inventory and the total of the MVEBs
- ROW 3: [(Row 1) + (Row 2)]; e.g., for 2029, 11.94 tpd + 0.09 tpd= 12.03 tpd

**ROW 24:** Required 18% reduction 6 years after Base Year; future milestone years are every 3 years until attainment year; and required reductions are 3% per year for each milestone year (e.g., for every 3 years, required 9% reduction)

ROW 35: [(2011 Base Year Row 1) x (1 - Row 2)]; e.g., for 2029, 16.54 tpd x (1 - 0.54)= 7.61 tpd

**ROW 46**: [(Row 1) – (Row 3)] or (Baseline – Target); negative number meets target level and positive number is shortfall of target level; e.g., for 2029, 11.94 tpd - 7.61 tpd = 4.33 tpd

ROW 57: [(Row 4) / (Row 1 Base Year ) x 100]; e.g., for 2029, cumulative shortfall is 4.33 tpd /16.54 tpd = 26.2%

**ROW 68**: Negative (Row 5) is zero shortfall; positive number is a shortfall. Incremental milestone year shortfall is determined by subtracting the previous year's cumulative shortfall from the current cumulative shortfall; e.g., for 2029, cumulative shortfall of 26.2% – previous 2026 shortfall of 19.7% = 6.5%

Row	Calculation Step <sup>a</sup>	<b>2011</b> <sup>b</sup>	2017	2020	2023	2026	2029	2031
1	RFP Baseline NOx Emissions	28.57	20.28	17.09	14.14	11.65	10.91	10.61
<u>2</u>	MVEB Rounding Margin	<u>-</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.10</u>	<u>0.09</u>	<u>0.0</u>
<u>3</u>	Baseline VOC + MVEB Rounding Margin	<u>-</u>	<u>20.28</u>	<u>17.09</u>	<u>14.14</u>	<u>11.75</u>	<u>11.00</u>	<u>10.61</u>
<u>4</u> 2	Reductions in NOx Emissions since Base Year	-	8.29	11.48	14.43	16. <del>92</del> 82	17. <del>66<u>57</u></del>	17.96
<u>5</u> 3	Percent Reductions in NOx Emissions since Base Year (%)	-	29.0	40.2	50.5	<del>59<u>58</u>.3</del> 9	61. <del>8</del> 5	62.9
<u>6</u> 4	Cumulative Shortfall in VOC (%)	-	0.3	9.4	13.2	<del>19.7</del> 20.0	26. <del>2</del> 7	31. <del>2</del> 4
<u>7</u> 5	Percent Surplus Reduction (%)	-	28.7	30.8	37.3	<del>39<u>38</u>.69</del>	<del>35<u>34</u>.7<u>8</u></del>	31.7 <u>5</u>
<u>8</u> 6	RFP Compliance	-	Yes	Yes	Yes	Yes	Yes	Yes

TABLE 6-3 SUMMARY OF REASONABLE FURTHER PROGRESS CALCULATIONS – NOx

<sup>a</sup> Units are in tons per day (tpd), based on the summer planning inventory unless otherwise noted.

<sup>b</sup> Base Year (2011).

Row Description:

- **ROW 1:** RFP baseline emissions used for RFP demonstration; Baseline and Future Emission Inventory taking into account existing rules and projected growth.
- **ROW 2:** Motor Vehicle Emissions Budgets Rounding Margins account for the differences in the on-road mobile source emissions projections in the inventory and the total of the MVEBs

ROW 3: [(Row 1) + (Row 2)]; e.g., for 2029, 10.91 tpd + 0.09 tpd= 11.00 tpd

**ROW 24:** Reductions achieved in Baseline: [(Row 1 Base Year) – (Row <u>31</u> Milestone Year)]; e.g., for 2029: 28.57 tpd – <u>1011</u>.91-00 tpd = 17.66-57 tpd

**ROW 35**: % Reductions achieved since Base Year: [(Row 24) / (Row 1 Base Year)] x 100; e.g., for 2029: (17.6657/28.57) x 100 = 61.85%

ROW 46: Cumulative VOC shortfall from Table 6-2 Row 57

ROW <u>57</u>: Surplus reductions achieved [(Row <u>35</u>) – (Row <u>46</u>)]; e.g., for 2029: 61.<u>85</u>% – 26.<u>27</u>% = <u>3534</u>.7<u>8</u>%

ROW 62: Positive number in Row 5-7 is percent surplus for each milestone year, thus meeting RFP target levels

### **RACM** Demonstration

As an "extreme" nonattainment area, a RACM Demonstration is required as part of the attainment plan. Section 172(c)(1) of Subpart 1 of the CAA requires nonattainment areas to provide for the implementation of all RACM as expeditiously as practicable, including the adoption of RACT. Section 172(c)(1) of the CAA sets the overall framework for the RACM analysis and requires the nonattainment air districts to: "Provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards."

RACM is applicable to a wide range of sources (stationary - point and area - and mobile) and should include measures that are technologically and economically feasible. RACM should also include RACT, which applies to stationary sources and represents the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economical feasibility.<sup>48</sup> The U.S. EPA has previously provided guidance interpreting the RACM requirement in the General Preamble<sup>49</sup> and in a memorandum entitled "Guidance on Reasonably Available Control Measures (RACM) Requirements and Attainment Demonstration Submissions for the Ozone NAAQS."<sup>50</sup> In summary, U.S. EPA guidance provides that to address the requirement to adopt all RACM, states should consider all potentially reasonable control measures for source categories in the nonattainment area to determine whether they are reasonably available for implementation in that area and whether they would, if implemented individually or collectively, advance the area's attainment date by one year or more.

South Coast AQMD periodically conducts RACT/RACM analyses as part of SIPs for various federal air quality standards. As part of the 2016 AQMP, a RACM analysis was conducted for the 2008 8-hour ozone standard for both the South Coast Air Basin and the Coachella Valley.<sup>51</sup> In June 2020, a RACT demonstration was conducted for the 2015 8-hour ozone standard (referred to as 2020 RACT Demonstration hereafter).<sup>52</sup> In December 2020, a RACM evaluation was conducted as part of the Coachella Valley Extreme Area Plan for the 1997 8-hour Ozone Standard (referred to as 2020 RACM Evaluation hereafter).<sup>53</sup> Most recently, as a component of the 2022 AQMP, South Coast AQMD conducted a comprehensive RACM analysis for the

<sup>&</sup>lt;sup>48</sup> U.S. EPA, State Implementation Plans; General Preamble for Proposed Rulemaking on Approval of Plan Revisions for Nonattainment Areas–Supplement (on Control Techniques Guidelines), 44 Fed. Reg. 53761 (September 17, 1979). https://www.epa.gov/sites/default/files/2016-08/documents/44\_fedreg\_53761\_9-17-

<sup>79</sup> general preamble supplement on ract and ctgs.pdf

<sup>&</sup>lt;sup>49</sup> U.S. EPA, State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990, 57 Fed. Reg. 13498, 13560 (April 16, 1992). <u>https://www.epa.gov/sites/default/files/2016-03/documents/57fedreg13498.pdf</u>

<sup>&</sup>lt;sup>50</sup> John Seitz, Guidance on Reasonably Available Control Measures (RACM) Requirements and Attainment Demonstration Submissions for the Ozone NAAQS, November 30, 1999 ("Seitz Memo")

<sup>&</sup>lt;sup>51</sup> South Coast AQMD, 2016 Air Quality Management Plan, Appendix VI-A: RACM/BACM Demonstration. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-manageme</u>

<sup>&</sup>lt;sup>52</sup> South Coast AQMD, Draft Final Staff Report for 2015 8-Hour Ozone Standard Reasonably Available Control Technology (RACT) Demonstration, June 2020. <u>http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2020/2020-Jun5-028.pdf?sfvrsn=8</u>

<sup>&</sup>lt;sup>53</sup> South Coast AQMD, Final Coachella Valley Extreme Area Plan for 1997 8-Hour Ozone Standard, December 2020. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/2-final-coachella-valley-extreme-area-plan-for-1997-8-hour-ozone-standard.pdf?sfvrsn=6</u>

2015 8-hour ozone standard. <sup>54</sup> The 2022 AQMP RACM analysis was built upon the 2020 RACT Demonstration. A 7-step analysis was conducted to identify potential control measures from various sources including prior RACT/RACM analyses, the U.S. EPA Technical Support Documents, control measures beyond RACM in the 2016 AQMP, rules and regulations adopted by other air districts and states, the U.S. EPA Menu of Control Measures, the U.S. EPA guidance documents, and a Control Measures Workshop.

The purpose of this RACM analysis is to determine whether any feasible measures are available for inclusion in the Coachella Valley Extreme Area Plan for the 2008 8-Hour Ozone Standard. The RACM/RACT analysis provides a comparison of the South Coast AQMD rules and regulations governing precursor emission limits to those established by the U.S. EPA guidance and representative agencies within California and elsewhere throughout the U.S. This Coachella Valley Extreme Area Plan RACM analysis builds upon the 2022 AQMP RACM Demonstration and the 2020 RACM Evaluation to review and, if applicable, update South Coast AQMD's control measures to advance emissions controls to reflect the current state of technology.

The RACM evaluation is broken down into the following emission source categories:

- South Coast AQMD Stationary and Area Sources
- CARB Mobile and Area sources
- Transportation Control Strategies and Transportation Control Measures

# South Coast AQMD Stationary and Area Sources

#### **Background and Emissions Inventory**

The 2022 AQMP RACM Demonstration was an updated analysis built upon the prior RACT/RACM analyses submitted in 2020 and evaluated the stringency of South Coast AQMD rules and regulations against the rules adopted from March 2020 to September 2021 in other ozone nonattainment air districts and state agencies. Since the 2020 RACT Demonstration, there have been no updates to U.S. EPA's Control Techniques Guidelines (CTGs) and Alternative Control Techniques (ACTs). The Coachella Valley Extreme Area RACM evaluation builds upon the latest 2022 AQMP RACM Demonstration and thus, staff evaluated the stringency of the South Coast AQMD rules and regulations against other agencies' rules adopted from October 2021 to March 2024. To identify VOC and NOx emission sources, the 2018 summer planning emissions inventory in Coachella Valley, segregated by Major Source Category (MSC), was used. As presented in Table 6-4, the stationary and area sources account for 47 percent of total VOC emissions and 7 percent of total NOx emissions in the Coachella Valley. Only MSCs with emissions of VOC or NOx are

<sup>&</sup>lt;sup>54</sup> South Coast AQMD, 2022 Air Quality Management Plan, Appendix VI-A: RACM/BACM Demonstration. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-manageme</u>

listed in Table 6-4. South Coast AQMD rules and regulations applicable to these stationary sources are also listed in Table 6-4.

# TABLE 6-4 2018 SUMMER PLANNING EMISSIONS INVENTORY FOR STATIONARY AND AREA SOURCES IN COACHELLA VALLEY, TONS PER DAY\*

MSC	Description	VOC	NOx	South Coast AQMD Rules and Regulations	
010	Electric Utilities	0.02	0.54	Rule 429.2 – Start-Up and Shutdown Exemption	
				Provisions for Oxides of Nitrogen from Electricity	
				Generating Facilities; Rule 1135 – Emissions of Oxides of	
				Nitrogen from Electricity Generating Facilities	
050	Manufacturing and	0.02	0.10	Rule 474 – Fuel Burning Equipment – Oxides of Nitrogen;	
	Industrial			Rule 476 – Steam Generating Equipment; Rule 1110.2 –	
				Emissions from Gaseous- and Liquid-Fueled Engines; Rule	
				1111 – Reduction of NOx Emissions from Natural-Gas-	
				Fired, Fan-Type Central Furnaces; Rule 1112 – Emissions	
				of Oxides of Nitrogen from Cement Kilns; Rule 1117 -	
				Emissions from Container Glass Melting and Sodium	
				Silicate Furnaces; Rule 1146 – Emissions of Oxides of	
				Nitrogen from Industrial, Institutional, and Commercial	
				Boilers, Steam Generators, and Process Heaters; Rule	
				1146.1 – Emissions of Oxides of Nitrogen from Small	
				Industrial, Institutional, and Commercial Boilers, Steam	
				Generators, and Process Heaters; Rule 1147 – NOx	
				Reductions from Miscellaneous Sources; Rule 1147.1 -	
				NOx Reductions from Aggregate Dryers; Rule 1147.2 -	
				NOx Reductions from Metal Melting and Heating	
				Furnaces; Rule 1159 – Nitric Acid Units – Oxides of	
				Nitrogen	
060	Service and	0.05	0.23	Rule 474 – Fuel Burning Equipment – Oxides of Nitrogen;	
	Commercial			Rule 476 – Steam Generating Equipment; Rule 1110.2 –	
				Emissions from Gaseous- and Liquid-Fueled Engines; Rule	
				1111 – Reduction of NOx Emissions from Natural-Gas-	
				Fired, Fan-Type Central Furnaces; Rule 1146 – Emissions	
				of Oxides of Nitrogen from Industrial, Institutional, and	
				Commercial Boilers, Steam Generators, and Process	
				Heaters; Rule 1146.1 – Emissions of Oxides of Nitrogen	
				from Small Industrial, Institutional, and Commercial	
				Boilers, Steam Generators, and Process Heaters; Rule	
				1147 – NOx Reductions from Miscellaneous Sources	
060		0.05	0.23	NOx Reductions from Metal Melting and Heating Furnaces; Rule 1159 – Nitric Acid Units – Oxides Nitrogen Rule 474 – Fuel Burning Equipment – Oxides of Nitroge Rule 476 – Steam Generating Equipment; Rule 1110.2 Emissions from Gaseous- and Liquid-Fueled Engines; Ru 1111 – Reduction of NOx Emissions from Natural-Ga Fired, Fan-Type Central Furnaces; Rule 1146 – Emissio of Oxides of Nitrogen from Industrial, Institutional, an Commercial Boilers, Steam Generators, and Proce Heaters; Rule 1146.1 – Emissions of Oxides of Nitroge from Small Industrial, Institutional, and Commercial	

MSC	Description	VOC	NOx	South Coast AQMD Rules and Regulations
099	Other (Fuel	0.01	0.09	Rule 474 – Fuel Burning Equipment – Oxides of Nitrogen;
	Combustion)			Rule 476 – Steam Generating Equipment; Rule 1110.2 –
				Emissions from Gaseous- and Liquid-Fueled Engines; Rule
				1111 – Reduction of NOx Emissions from Natural-Gas-
				Fired, Fan-Type Central Furnaces; Rule 1146 – Emissions
				of Oxides of Nitrogen from Industrial, Institutional, and
				Commercial Boilers, Steam Generators, and Process
				Heaters; Rule 1146.1 – Emissions of Oxides of Nitrogen
				from Small Industrial, Institutional, and Commercial
				Boilers, Steam Generators, and Process Heaters; Rule
				1147 – NOx Reductions from Miscellaneous Sources
110	Sewage Treatment	0.01	0.00	Rule 442 – Usage of Solvents; Rule 1179 – Publicly Owned
				Treatment Works Operations
130	Incineration	0.00	0.01	Rule 474 – Fuel Burning Equipment – Oxides of Nitrogen
220	Degreasing	0.27	0.00	Rule 442 – Usage of Solvents; Rule 1122 – Solvent
				Degreasers; Rule 1171 – Solvent Cleaning Operations
230	Coatings and Related	1.28	0.00	Rule 442 – Usage of Solvents; Rule 1104 – Wood Flat Stock
	Process Solvents			Coating Operations; Rule 1106 – Marine and Pleasure
				Craft Coating Rule; 1107 – Coating of Metal Parts and
				Products; Rule 1115 – Motor Vehicle Assembly Line
				Coating Operations; Rule 1124 – Aerospace Assembly and
				Component Manufacturing Operations; Rule 1125 –
				Metal Container, Closure, and Coil Coating Operations;
				Rule 1126 – Magnet Wire Coating Operations; Rule 1128
				<ul> <li>Paper, Fabric, and Film Coating Operations; Rule 1132 –</li> </ul>
				Further Control of VOC Emissions from High-Emitting
				Spray Booths; Rule 1136 – Wood Products Coatings; Rule
				1145 – Plastic, Rubber, Leather, and Glass Coatings; Rule
				1151 – Motor Vehicle and Mobile Equipment Non-
				Assembly Line Coating Operations; Rule 1162 – Polyester
				Resin Operations; Rule 1164 – Semiconductor
				Manufacturing
240	Printing	0.02	0.00	Rule 442 – Usage of Solvents; Rule 1128 – Paper, Fabric,
				and Film Coating Operations; Rule 1130 – Graphic Arts;
				Rule 1130.1 – Screen Printing Operations
250	Adhesives and	0.14	0.00	Rule 442 – Usage of Solvents; Rule 1168 – Adhesive and
	Sealants			Sealant Applications
299	Other (Cleaning and	0.02	0.00	Rule 442 – Usage of Solvents; Rule 1144 – Metalworking
	Surface Coatings)			Fluids and Direct-Contact Lubricants; Rule 1171 – Solvent
				Cleaning Operations

MSC	Description	VOC	NOx	South Coast AQMD Rules and Regulations
330	Petroleum Marketing	0.33	0.00	Rule 461 – Gasoline Transfer and Dispensing; Rule 461.1 – Gasoline Transfer and Dispensing for Mobile Fueling Operations; Rule 462 – Organic Liquid Loading; Rule 463 – Organic Liquid Storage; Rule 1142 – Marine Tank Vessel Operations; Rule 1170 – Methanol Compatible Fuel Storage and Transfer; Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants; Rule 1177 – Liquefied Petroleum Gas Transfer and Dispensing; Rule 1178 – Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities
410	Chemical	0.12	0.00	Rule 442 – Usage of Solvents; Rule 462 – Organic Liquid Loading; Rule 463 – Organic Liquid Storage; Rule 1103 – Pharmaceutical and Cosmetic Manufacturing Operations; Rule 1141 – Control of Volatile Organic Compound Emissions from Resin Manufacturing; Rule 1141.1 – Coatings and Ink Manufacturing; Rule 1141.2 – Surfactant Manufacturing; Rule 1145 – Plastic, Rubber, Leather, and Glass Coatings; Rule 1163 – Control of Vinyl Chloride Emissions; Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants
420	Food and Agriculture	0.03	0.00	Rule 442 – Usage of Solvents; Rule 1131 – Food Product Manufacturing and Process Operations; Rule 1138 – Control of Emissions from Restaurant Operations; Rule 1153 – Commercial Bakery Ovens
430	Mineral Processes	0.02	0.00	Rule 442 – Usage of Solvents
499	Other (Industrial Processes)	0.07	0.00	Rule 442 – Usage of Solvents; Rule 462 – Organic Liquid Loading; Rule 463 – Organic Liquid Storage; Rule 1133 – Composting and Related Operations – General Administrative Requirements; Rule 1133.1 – Chipping and Grinding Activities; Rule 1133.2 – Emission Reductions from Co-Composting Operations; Rule 1133.3 – Emission Reductions from Greenwaste Composting Operations; Rule 1144 – Metalworking Fluids and Direct-Contact Lubricants; Rule 1162 – Polyester Resin Operations
510	Consumer Products	3.04	0.00	Rule 1143 – Consumer Paint Thinners and Multi-Purpose Solvents; Rule 1168 – Adhesive and Sealant Applications
520	Architectural Coatings and Related Solvents	0.30	0.00	Rule 1113 – Architectural Coatings

MSC	Description	VOC	NOx	South Coast AQMD Rules and Regulations
530	Pesticides/Fertilizers	0.22	0.00	Rule 1133.2 – Emission Reductions from Co-Composting
				Operations; Rule 1133.3 - Emission Reductions from
				Greenwaste Composting Operations
540	Asphalt Paving/	0.06	0.00	Rule 470 – Asphalt Air Blowing; Rule 1108 – Cutback
	Roofing			Asphalt; Rule 1108.1 – Emulsified Asphalt
610	Residential Fuel	0.09	0.28	Rule 1111 – Reduction of NOx Emissions from Natural-
	Combustion			Gas-Fired, Fan-Type Central Furnaces; Rule 1121 – Control
				of Nitrogen Oxides from Residential Type, Natural-Gas-
				Fired Water Heaters
620	Farming Operations	0.07	0.00	Rule 474 – Fuel Burning Equipment – Oxides of Nitrogen;
				Rule 476 – Steam Generating Equipment; Rule 1127 –
				Emission Reductions from Livestock Waste
660	Fires	0.01	0.00	Rule 444 – Open Burning; Rule 445 – Wood Burning
670	Waste Burning and	0.01	0.01	Rule 473 – Disposal of Solid and Liquid Wastes; Rule 474
	Disposal			<ul> <li>– Fuel Burning Equipment – Oxides of Nitrogen; Rule 476</li> </ul>
				<ul> <li>Steam Generating Equipment</li> </ul>
690	Cooking	0.03	0.00	Rule 1174 – Control of Volatile Organic Compound
				Emissions from the Ignition of Barbecue Charcoal
	RECLAIM	-	0.11	Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and
				Oxides of Sulfur (SOx)
	Total Stationary**	6.26	1.38	

\* Certain source categories are not listed because they have zero emissions for both VOC and NOx.

\*\* Values are rounded to nearest integer and may not sum due to rounding.

To capture all potential emission reduction opportunities for stationary point and area sources, an incremental RACM evaluation, focusing on other agencies' rules adopted from October 2021 to March 2024, has been conducted for this Plan. South Coast AQMD rules are evaluated against those adopted by other air quality agencies in ozone nonattainment areas designated as "serious" or above. These air districts and state agencies are listed in Table 6-5.

# TABLE 6-5NONATTAINMENT AREAS DESIGNATED AS "SERIOUS" OR ABOVE FOR 2008 OZONE NAAQS<sup>a</sup>

Nonattainment	Nonattainment Area	Responsible Air Agency
Status		
Extreme	Los Angeles-South Coast Air Basin, CA	South Coast AQMD
	Riverside County (Coachella Valley), CA	South Coast AQMD
	San Joaquin Valley, CA	San Joaquin Valley Air Pollution
		Control District (SJVAPCD)
Severe-15	Dallas-Fort Worth, TX	Texas Commission on Environmental
		Quality (TCEQ)
	Denver-Boulder-Greeley-Ft. Collins-	Colorado Department of Public Health
	Loveland, CO	and Environment (CDPHE)
	Houston-Galveston-Brazoria, TX	TCEQ
	Kern County (Eastern Kern), CA	Eastern Kern County Air Pollution
		Control District (EKAPCD)
	Los Angeles-San Bernardino Counties	Mojave Desert Air Quality
	(West Mojave Desert), CA	Management District (MDAQMD)
	Morongo Band of Mission Indians, CA	U.S. EPA
	New York-N. New Jersey-Long Island,	New York State Department of
	NY-NJ-CT	Environmental Conservation
		(NYSDEC);
		New Jersey Department of
		Environmental Protection (NJDEP);
		Connecticut Department of Energy &
		Environmental Protection (CTDEEP)
	Sacramento Metro, CA	Sacramento Metropolitan Air Quality
		Management District (SMAQMD)
	San Diego County, CA	San Diego County Air Pollution Control
		District (SDAPCD)
Serious	Greater Connecticut, CT	CTDEEP
	Nevada County (Western part), CA	Northern Sierra Air Quality
		Management District (NSAQMD)
	Ventura County, CA	Ventura County Air Pollution Control
		District (VCAPCD)

<sup>a</sup> Nonattainment status is based on the U.S. EPA's Green Book as of March 31, 2024.

#### VOC Evaluation

Recently adopted VOC rules and regulations by other air agencies are listed in Table 6-6. Table 6-6 also lists the comparable South Coast AQMD rule(s) and specifies whether applicable emission sources exist in Coachella Valley based on the emissions inventory shown in Table 6-4. If such sources as those regulated by other agencies' rules exist in Coachella Valley, a RACM evaluation is performed to assess the stringency of applicable South Coast AQMD rules. However, if such sources do not exist in Coachella Valley, no further evaluation is performed. Table 6-7 summarizes the RACM evaluation of applicable South Coast AQMD rules and regulations for VOCs.

#### TABLE 6-6

# STATIONARY SOURCE VOC RULES AND REGULATIONS ADOPTED FROM OCTOBER 2021 TO MARCH 2024 IN OTHER AIR AGENCIES AND APPLICABLE SOUTH COAST AQMD RULES AND REGULATIONS

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in
1.80.001			Coachella Valley
SJVAPCD	Rule 4354 – Glass Melting Furnaces (amended 12/16/21)	n/a <sup>1</sup>	No
	Rule 4401 – Steam-Enhanced Crude Oil Productions Wells (amended 6/15/23)	Rule 1148 – Thermally Enhanced Oil Recovery Wells (adopted 11/5/82)	No
	Rule 4402 – Crude Oil Production Sumps (amended 12/21/23)	n/a <sup>1</sup>	No
	Rule 4409 – Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities (amended 6/15/23)	Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	Yes
	Rule 4455 – Components at Petroleum Refineries, Gas Liquids Processing Facilities, and Chemical Plants (amended 6/15/23)	Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	Yes
	Rule 4623 – Storage of Organic Liquids (amended 6/15/23)	Rule 463 – Organic Liquid Storage (amended 5/5/23); Rule 1149 – Storage Tank and Pipeline Cleaning and Degassing (amended 5/2/08)	Yes
	Rule 4624 – Transfer of Organic Liquid (amended 6/15/23)	Rule 462 – Organic Liquid Loading (amended 5/14/99)	Yes
VCAPCD	Rule 71 – Crude Oil and Reactive Organic Compound Liquids (amended 12/12/23)	Rule 463 – Organic Liquid Storage (amended 5/5/23)	Yes
	Rule 71.1 – Crude Oil Production and Separation (amended 7/7/11/23)	Rule 463 – Organic Liquid Storage (amended 5/5/23)	Yes
	Rule 74.10 – Components at Crude Oil and Natural Gas Production Facilities, Pipeline Transfer Stations	Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from	Yes

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in Coachella Valley
	and Natural Gas Production, Storage and Processing Facilities (amended 12/12/23)	Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	
	Rule 74.35 – Flares (adopted 9/12/23)	Rule 1118.1 – Control of Emissions from Non-Refinery Flares (adopted 1/4/19)	Yes
BAAQMD	Rule 8-2 – Miscellaneous Operations (amended 5/4/22)	n/a	No
	Rule 8-5 – Storage of Organic Liquids (amended 1/26/22)	Rule 463 – Organic Liquid Storage (amended 5/5/23)	Yes
	Rule 8-6 – Organic Liquid Bulk Terminals and Bulk Plants (amended 1/26/22)	Rule 462 – Organic Liquid Loading (amended 5/14/99)	Yes
	Rule 8-7 – Gasoline Dispensing Facilities (amended 1/26/22)	Rule 461 – Gasoline Transfer and Dispensing (amended 1/7/22)	Yes
	Rule 8-8 – Wastewater Collection and Separation Systems (amended 12/22/23)	Rule 464 – Wastewater Separators (amended 12/7/90)	No
	Rule 8-9 – Vacuum Producing Systems (amended 11/3/21)	Rule 465 – Refinery Vacuum-Producing Devices or System (amended 8/13/99)	No
	Rule 8-18 – Equipment Leaks (amended 11/3/21)	Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	Yes
	Rule 8-28 – Episodic Releases from Pressure Relief Devices at Refineries and Chemical Plants (amended 1/26/22)	Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	Yes
	Rule 8-33 – Gasoline Bulk Terminals and Gasoline Cargo Tanks (amended 11/3/21)	Rule 462 – Organic Liquid Loading (amended 5/14/99)	Yes
	Rule 8-39 – Gasoline Bulk Plants and Gasoline Cargo Tanks (amended 11/3/21)	Rule 462 – Organic Liquid Loading (amended 5/14/99)	Yes
	Rule 8-44 – Marine Tank Vessel Operations (amended 11/3/21)	Rule 1142 – Marine Tank Vessel Operations (adopted 7/19/91)	No
	Rule 8-53 – Vacuum Truck Operations (amended 11/3/21)	Rule 462 – Organic Liquid Loading (amended 5/14/99)	Yes
	Rule 12-11 – Flare Monitoring at Refineries (amended 11/3/21)	Rule 1118 – Control of Emissions from Refinery Flares (amended 4/5/24)	No
	Rule 12-12 – Flares at Refineries (amended 11/3/21)	Rule 1118 – Control of Emissions from Refinery Flares (amended 4/5/24)	No
EKAPCD	Rule 410 – Organic Solvents (amended 9/1/22)	Rule 442 – Usage of Solvents (amended 12/15/00)	Yes

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in Coachella Valley
	Rule 410.8 – Aerospace Assembly and Coating Operations (amended	Rule 1124 – Aerospace Assembly and Component Manufacturing Operations	Yes
	11/3/22) Rule 412 – Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants (amended 1/13/22)	(amended 9/21/01) Rule 461 – Gasoline Transfer and Dispensing (amended 1/7/22)	Yes
	Rule 412.1 – Transfer of Gasoline to Vehicle Fuel Tanks (amended 1/13/22)	Rule 461 – Gasoline Transfer and Dispensing (amended 1/7/22)	Yes
NYSDEC <sup>2</sup>	6 NYCRR 203 – Oil and Natural Gas Sector (3/3/22)	n/a	No
	6 NYCRR 205 – Architectural and Industrial Maintenance (AIM) Coatings (12/31/21)	Rule 1113 – Architectural Coatings (amended 2/5/16)	Yes
	6 NYCRR 226 – Solvent Cleaning Processes and Industrial Cleaning Solvents (12/31/21)	Rule 1171 – Solvent Cleaning Operations (amended 5/1/09)	Yes
	6 NYCRR 228 – Surface Coating Processes, Commercial and Industrial Adhesives, Sealants and Primers (12/31/21)	Rule 1103 – Pharmaceuticals and Cosmetics Manufacturing Operations (amended 3/2/99); Rule 1104 – Wood Flat Stock Coating Operations (amended 8/13/99); Rule 1106 – Marine and Pleasure Craft Coatings (amended 1/6/23); Rule 1107 – Coating of Metal Parts and Products (amended 1/6/23); Rule 1115 – Motor Vehicle Assembly Line Coating Operations (amended 3/4/22); Rule 1124 – Aerospace Assembly and Component Manufacturing Operations (amended 9/21/01); Rule 1125 – Metal Container, Closure, and Coil Coating Operations (amended 3/7/08); Rule 1126 – Magnet Wire Coating Operations (amended 1/13/95); Rule 1128 – Paper, Fabric, and Film Coating Operations (amended 3/8/96); Rule 1136 – Wood Products Coatings (amended 6/14/96); Rule 1145 – Plastic, Rubber, Leather, and Glass Coatings (amended 12/4/09); Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations (amended 9/5/14)	Yes
	6 NYCRR 229 – Petroleum and Volatile Organic Liquid Storage and Transfer (12/31/22)	Rule 462 – Organic Liquid Loading (amended 5/14/99); Rule 463 – Organic Liquid Storage (amended 5/5/23)	Yes

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in
			Coachella Valley
	6 NYCRR 230 – Gasoline Dispensing Sites and Transport Vehicles (2/5/22)	Rule 461 – Gasoline Transfer and Dispensing (amended 1/7/22)	Yes
	6 NYCRR 233 – Pharmaceutical and Cosmetic Manufacturing Processes (2/15/22)	Rule 1103 – Pharmaceutical and Cosmetic Manufacturing Operations (amended 3/12/99)	
	6 NYCRR 234 – Graphic Arts (2/15/22)	Rule 1130 – Graphic Arts (amended 5/2/14)	Yes
	6 NYCRR 236 – Synthetic Organic Chemical Manufacturing Facility Component Leaks (2/15/22)	Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	Yes
NJDEP <sup>3</sup>	NJAC 7:27-16.2 – VOC Stationary Storage Tanks	Rule 463 – Organic Liquid Storage (amended 5/5/23)	Yes
	NJAC 7:27-16.3 – Gasoline Transfer Operations	Rule 461 – Gasoline Transfer and Dispensing (amended 1/7/22)	Yes
	NJAC 7:27-16.6 – Open Top Tanks and Solvent Cleaning Operations	Rule 1171 – Solvent Cleaning Operations (amended 5/1/09)	Yes
	NJAC 7:27-6.12 – Surface Coating Operations at Mobile Equipment Repair and Finishing Facilities	Rule 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations (amended 9/5/14)	Yes
	NJAC 7:27-16.15 – Miscellaneous Metal and Plastic Parts Coatings	Rule 1106 – Marine and Pleasure Craft Coatings (amended 1/6/23); Rule 1107 – Coating of Metal Parts and Products (amended 1/6/23); Rule 1125 – Metal Container, Closure, and Coil Coating Operations (amended 3/7/08)	Yes
CDPHE	5 CCR 1001-9 – Control of Emissions from Oil and Gas Emissions Operations (amended 2/14/24)	Rule 463 – Organic Liquid Storage (amended 5/5/23); Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (amended 2/6/09)	Yes
	5 CCR 1001-25 – Control of Volatile Organic Compounds from Consumer Products and Architectural and Industrial Maintenance Coatings (amended 12/15/22)	Rule 1113 – Architectural Coatings (amended 2/5/16)	Yes
	5 CCR 1001-29 – Control of Emissions from Volatile Organic Compounds and Petroleum Liquids Storage and Petroleum Processing and Refining (adopted 4/20/23)	Rule 463 – Organic Liquid Storage (amended 5/5/23)	Yes
	5 CCR 1001-29 – Control of Emissions from Surface Coating, Solvents, Asphalt, Graphic Arts and Printing,	Rule 442 – Usage of Solvents (amended 12/15/00); Rule 1103 – Pharmaceuticals and Cosmetics Manufacturing Operations (amended 3/2/99); Rule 1104 – Wood Flat	Yes

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in Coachella Valley
	and Pharmaceuticals (adopted 4/20/23)	<ul> <li>Stock Coating Operations (amended 8/13/99); Rule 1106 – Marine and Pleasure Craft Coatings (amended 1/6/23); Rule 1107 – Coating of Metal Parts and Products (amended 1/6/23); Rule 1115 – Motor Vehicle Assembly Line Coating Operations (amended 3/4/22); Rule 1124 – Aerospace Assembly and Component Manufacturing Operations (amended 9/21/01); Rule 1125 – Metal Container, Closure, and Coil Coating Operations (amended 3/7/08); Rule 1126 – Magnet Wire Coating Operations (amended 1/13/95); Rule 1128 – Paper, Fabric, and Film Coating Operations (amended 3/8/96); Rule 1130.1 – Screen Printing Operations (amended 12/13/96); Rule 1136 – Wood Products Coatings (amended 6/14/96); Rule 1145 – Plastic, Rubber, Leather, and Glass Coatings (amended 12/4/09); Rule 1151 – Motor Vehicle and Mobile Equipment Non- Assembly Line Coating Operations (amended 9/5/14)</li> </ul>	
CTDEEP	22a-174-20 – Control of Organic Compound Emissions (amended 10/28/22)	Rule 442 – Usage of Solvents (amended 12/15/00); Rule 462 – Organic Liquid Loading (amended 5/14/99); Rule 463 – Organic Liquid Storage (amended 5/5/23); Rule 1106 – Marine and Pleasure Craft Coatings (amended 1/6/23); Rule 1107 – Coating of Metal Parts and Products (amended 1/6/23); Rule 1125 – Metal Container, Closure, and Coil Coating Operations (amended 3/7/08); Rule 1128 – Paper, Fabric, and Film Coating Operations (amended 3/8/96); Rule 1145 – Plastic, Rubber, Leather, and Glass Coatings (amended 12/4/09)	Yes

<sup>1</sup> South Coast AQMD Rule 1117 does not have VOC emission limit.

<sup>2</sup> New York Codes, Rules and Regulations (NYCRR) rules are current through specified dates.

<sup>3</sup> New Jersey Administrative Code (NJAC) Title 7 Chapter 27 Subchapter 16 – Control and Prohibition of Air Pollution by Volatile Organic Compounds was last amended on February 24, 2022.

# TABLE 6-7

# RACM EVALUATION OF APPLICABLE SOUTH COAST AQMD VOC RULES AND REGULATIONS

Rule No	Rule Title	Current Rule Requirements	Other Agency Rules that Are More	RACM Evaluation
			Stringent	
442	Usage of Solvents (Amended 12/15/00)	<ul> <li>Organic materials shall not discharge from equipment to the atmosphere, unless such emissions are reduced by 85% or to the following:</li> <li>14.3 lb/day for organic materials that come into contact with flame or are baked, heat cured, or heat polymerized</li> <li>39.6 lb/day for organic materials from the use of photochemically reactive solvents</li> <li>600 lb/day for organic materials from the use of non-photochemically reactive solvents</li> <li>An operator shall not emit VOC to the atmosphere from all VOC-containing materials, equipment or processes, in excess of 833 lb/month/facility. However, operators can install a control device with an 85% overall control efficiency in lieu of meeting the limit.</li> </ul>	EKAPCD Rule 410 (Amended 9/1/22) requires that on and after 3/8/24, an operator shall not emit VOC to the atmosphere, in excess of 450 lb/month/facility from all VOC-containing materials, equipment, and processes.	The facility-wide VOC emission limit in South Coast AQMD Rule 442 is less stringent than that in EKAPCD Rule 410 (833 vs. 450 lb/month). However, both rules allow installation and operation of a VOC emission control device in lieu of meeting the VOC emission limit. Lowering the Rule 442 facility- wide VOC emission limit would exceed South Coast AQMD's VOC cost-effectiveness threshold (\$36,000/ton) as staff estimates a cost-effectiveness of \$41,700/ton of VOC reduced. Nearly all facilities in South Coast AQMD are subject to a Regulation XI source- specific rule which makes Rule 442 not applicable. In the rare instances where Rule 442 is applicable, installation of a control device is the primary compliance pathway and, thus, operators are not subject to the facility-wide VOC limit. For these reasons, staff concluded that Rule 442 meets RACM.
461	Gasoline Transfer and Dispensing (Amended 1/7/22)	For Phase I (gasoline transfer into stationary storage tanks), underground storage tanks: an enhanced vapor recovery system having 98% control efficiency and emission factor not exceeding 0.15 lb/1,000 gallons; aboveground storage tanks: a vapor recovery system having 95% control efficiency. For Phase II (gasoline transfer into vehicle fuel tanks), a vapor recovery system having 95% efficiency and emission factor not exceeding 0.38 lb/1,000 gallons.	n/a*	Meets RACM.
462	Organic Liquid Loading (Amended 5/14/99)	Applicable to facilities loading organic liquids with a true vapor pressure of 1.5 psi or greater. Class A facilities (≥20,000 gallons/day loading) are required to meet a VOC emissions limit at 0.08 lb/1,000 gallons loaded. Class B facilities (4,000–20,000 gallons/day loading) are required a CARB certified vapor recovery system with 90% recovery efficiency. Rule requires no facility vapor leak (defined as a	SJVAPCD Rule 4624 requires at least 95% by weight of VOC displaced during organic liquid transfers for a Class 2 organic liquid transfer facility (4,000–20,000 gallons/day). BAAQMD Rule 8-33 requires emissions of VOC from a vapor recovery system not to exceed 0.04 lb/1,000 gallons of organic liquid loaded.	For a subcategory of applicable sources (Class B facilities), South Coast AQMD's rule is not as stringent as SJVAPCD's rule (90 vs. 95% of VOC displaced). However, South Coast AQMD's compliance records indicate that the actual control efficiency exceeds 95%.

Rule No	Rule Title	Current Rule Requirements	Other Agency Rules that Are More	RACM Evaluation
			Stringent	
		leak in excess of 3,000 ppm as methane above background determined by U.S. EPA Method 21) from loading at Class A and B facilities. In addition, transport vessels shall be operated so that there are no transport vessel leaks or liquid leaks.		BAAQMD Rule 8-33 requires lower VOC emissions from vapor recovery systems than South Coast AQMD rule (0.04 vs. 0.08 lb/1,000 gallons). Lowering the VOC emissions to 0.04 lb/1,000 gallons costs \$100,000 to \$250,000 per ton of VOC reduced <sup>#</sup> and is not cost- effective and thus, is not a potential RACM. Overall, South Coast Rule 462 provides RACM level of control.
463	Organic Liquid Storage (Amended 6/7/24)	<ul> <li>External Floating Roof (EFR) Requirements <ul> <li>A closure device on a welded/riveted Tank shell using</li> <li>Mechanical Shoe Primary Seal:</li> <li>Gaps between Primary Seal and Tank shell: <ul> <li>No gap larger than 1.5"</li> <li>Gaps &gt;0.5" not to exceed cumulative length of 30% of circumference.</li> <li>Gaps &gt;0.125" not to exceed 60% of circumference.</li> <li>No continuous gap &gt;0.125" can exceed 10% of circumference.</li> </ul> </li> <li>No continuous gap &gt;0.125" can exceed 10% of circumference.</li> <li>Gaps between Secondary Seal and Tank shell: <ul> <li>No gap larger than 0.5"</li> <li>Gaps &gt;0.125" not to exceed cumulative length of 95% of circumference.</li> </ul> </li> <li>Primary and Secondary Seals for Tanks subject to U.S. EPA CFR 40 Part 60 Subpart Kb must meet the Seal Gap requirements specified in 40 CFR Part 60 Subpart Kb.</li> <li>All Roof Openings must be covered (exception for pressurevacuum valves) and maintained in a Vapor Tight condition.</li> <li>Contingencies for the applicable ozone NAAQS.</li> <li>Vapor recovery systems on fixed roof tanks with at least 98% reduction by weight.</li> <li>Doming for EFR tanks storing organic liquids with a TVP of 3.0 psia or greater.</li> <li>Other reporting and recordkeeping requirements apply.</li> </ul></li></ul>	<ul> <li>SJVAPCD Rule 4623 has the following primary gap allowance requirements:</li> <li>Not more than 10% (gaps &gt;0.5")</li> <li>Not more than 30% (gaps &gt;0.125")</li> <li>BAAQMD Rule 8-5 has the following primary gap allowance requirements:</li> <li>Not more than 10% (gaps &gt;0.5")</li> <li>Not more than 40% (gaps &gt;0.125")</li> <li>Not more than 10% (gaps &gt;1.5", riveted)</li> </ul>	The level of stringency of South Coast AQMD Rule 463 varies depending on category. Rule 463 does not match the stringency of SJVAPCD Rule 4623 and BAAQMD Rule 8-5 for primary gap allowances. Based on staff analysis, adopting identical gap allowances as in San Joaquin Valley and Bay Area rules is not cost- effective. Staff further found that the U.S. EPA CFR 40 Part 60 seal requirements were consistent with the more stringent seal gap requirements found in SJVAPCD Rule 4623 on an emission reduction basis. Based on this finding, staff incorporated the federal standard in Rule 463, providing RACM level of control.

Rule No	Rule Title	Current Rule Requirements	Other Agency Rules that Are More	RACM Evaluation	
			Stringent		
1103	Pharmaceuticals and Cosmetics Manufacturing Operations (Amended 3/12/99)	<ul> <li>Process equipment requirements: <ul> <li>15 lb/day VOC limit from each reactor, distillation column, crystallizer, or centrifuge unless vented to surface condensers.</li> </ul> </li> <li>Air dryer and production equipment exhaust system requirements: <ul> <li>90% emissions control from production equipment including air dryers emitting &gt;330 lb/day of VOC</li> <li>Reduce to &lt;33 lb/day from production equipment including air dryers emitting &lt;330 lb/day of VOC</li> </ul> </li> <li>VOC transfer requirements: <ul> <li>Shall not transfer VOC with a vapor pressure &gt;4.1 psi at 20 deg C, from any truck or rail car into a storage thank with capacities &gt;2,000 gallons, unless emissions are reduced by 90%.</li> </ul> </li> <li>Facilities that emit, at the design production rating, 15</li> </ul>	n/a*	Meets RACM.	
		lb/day or less VOC are exempt.			
1104	Wood Flat Stock Coating Operations (Amended 8/13/99)	Wood flat stock coatings, inks, and adhesives for interior wood panels and exterior wood siding shall contain no more than 250 g of VOC/L of coating (2.1 lb/gallon), less water and exempt solvent). In lieu of VOC limit, use control device having 95% control efficiency (or 50 ppm outlet) and 90% collecting efficiency.	n/a*	Meets RACM.	
1106	Marine and Pleasure Craft Coatings (Amended 1/6/23)	Marine Coating: • 275 to 420 g VOC/L, baked • 340 to 610 g VOC/L, air dried. Pleasure Craft Coating: • 330 to 780 g VOC/L. Marine & Pleasure Craft Low-Solids Coating: • 120 g VOC/L	n/a*	Meets RACM.	
1107	Coating of Metal Parts and Products (Amended 1/6/23)	Coating-specific VOC emission limits from 2.3 to 3.5 lb/gal. In lieu of complying with specific emission limits, operator can use air pollution control system with at least 95% control efficiency (or 5 ppm outlet concentration) and 90% capture efficiency. Solvent cleaning operations must comply with Rule 1171.	n/a*	Meets RACM.	
1113	Architectural Coatings (Amended 2/5/16)	Coating-specific VOC emission limits of 50–730 g/L. VOC limits for Colorants range from 50–600 g/L of colorant.	n/a*	Meets RACM.	

Rule No	Rule Title	Current Rule Requirements	Other Agency Rules that Are More Stringent	RACM Evaluation	
1118.1	Control of Emissions from Non-Refinery Flares (Adopted 1/4/19)	<ul> <li>Flare gas VOC emission limits (lb/MMBtu):</li> <li>Digester gas – major facility: 0.038</li> <li>Landfill gas: 0.038</li> <li>Produced gas: 0.008</li> </ul>	n/a*	Meets RACM.	
1124	Aerospace Assembly and Component Manufacturing Operations (Amended 9/21/01)	Coating-specific content limits from 160 to 1,000 g/L. Specific high transfer coating applications (e.g., HVLP spray). In lieu of complying with specific emission limits, operator can use air pollution control system with at least 95% control efficiency (or 50 ppm outlet concentration) and 90% capture efficiency. Solvent cleaning operations must comply with Rule 1171.	<ul> <li>EKAPCD Rule 410.8 has various VOC emission limits by coating category from 160 to 1,230 g/L. Some categories have separate VOC limits by differing compliance schedule before 11/3/24 or on and after 11/3/24. On and after 11/3/24, the following VOC limits are more stringent than those in Rule 1124:</li> <li>Other Flight-Test Coating: 600 g/L (vs. 840 g/L)</li> <li>Mold Release Coatings: 762 g/L (vs. 780 g/L)</li> <li>Clear Topcoat: 420 g/L (vs. 520 g/L)</li> <li>Fastener Sealant: 600 g/L (vs. 750 g/L)</li> <li>Line Sealer Maskant: 650 g/L (vs. 750 g/L)</li> </ul>	While South Coast AQMD Rule 1124 has many categories that are comparable to EKAPCD Rule 410.8 requirements, Rule 410.8 has, in general, more subcategories than Rule 1124. For the VOC limits effective 11/3/24, some subcategories, such as Other Flight-Test Coating, and Line Sealer Maskant, in South Coast AQMD Rule 1124 are less stringent than those in Rule 410.8. Both Mold Release Coatings and Fastener Sealant have lower VOC limits with a condition that "classified" and space vehicle coatings are exempt from these limits, whereas South Coast AQMD Rule 1124 does not include such an exemption. The categories with lower VOC limits are low- usage categories. In totality, Rule 1124 is as stringent as the EKAPCD rule and meets RACM.	
1125	Metal Container, Closure, and Coil Coating Operations (Amended 3/7/08)	Spray coating of 1 gallon per day is exempt. Drum coating, reconditioned, interior: 510 g VOC/L coating.	CTDEEP Rule 22a-174-20 (s) Miscellaneous metal and plastic parts coatings: Drum coating, reconditioned, interior: 500 g VOC/L coating.	The VOC limit for the drum coating category in South Coast AQMD Rule 1125 is comparable to that in Connecticut DEEP rule 22a-174-20 and provides RACM level of control.	
1126	Magnet Wire Coating Operations (Amended 1/13/95)	Magnet wire coating shall contain no more than 200 g VOC/L (1.67 lb/gal) of coating less water and less exempt compounds, or the emission control system shall achieve at least 90% overall efficiency by direct incineration at 1,499 deg F or higher.	n/a*	Meets RACM.	
1128	Paper, Fabric, and Film Coating Operations (Amended 3/8/96)	VOC concentration limit in paper, fabric, or film coating application with or without heating ovens: 265 g/L of coating less water and less exempt compounds. For plastisol, VOC emission limit is 20 g/L. VOC control efficiency of 85% is required.	n/a*	Meets RACM.	

Rule No	Rule Title	Current Rule Requirements	Other Agency Rules that Are More Stringent	RACM Evaluation
1130.1	Screen Printing Operations (Amended 12/13/96)	VOC limits in screen printing operations range from 400 to 800 g/L. A facility or screen printing operations performed by manufacturers for performance research and development (R&D) that emit ≤2 lb VOC/day are exempt from rule requirements.	n/a*	Meets RACM.
1136	Wood Products Coatings (Amended 6/14/96)	VOC limit for wood products coatings is in the range of 120– 750 g/L. A VOC limit for high-solid stains is 350 g/L.	n/a*	Meets RACM.
1145	Plastic, Rubber, Leather, and Glass Coatings (Amended 12/4/09)	VOC limits: 50–800 g/L (0.4–6.7 lb/gal). Average provisions and add-on control at 95% control efficiency (50 ppm outlet), 90% capture efficiency. High transfer coating equipment (e.g., HVLP). Solvent cleaning operations must comply with Rule 1171.	n/a*	Meets RACM.
1151	Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations (Amended 9/5/14)	VOC content limits range from 250–840 g/L. Averaging provisions are allowed. High transfer coating equipment is required. Solvent cleaning operations must comply with Rule 1171.	n/a*	Meets RACM.
1171	Solvent Cleaning Operations (Amended 5/1/09)	VOC content limits for cleaning solutions for printing presses range from 25 g/L for flexographic printing to 100 g/L for lithographic printing. VOC content limit in a solvent for general solvent cleaning operations is 25 g/L. Combined collection and destruction efficiency of control equipment is required 85.5% of VOC or an output of less than 50 ppm as carbon.	n/a*	Meets RACM.
1173	Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (Amended 2/6/09)	<ul> <li>Leak standards</li> <li>Light liquid leak: no more than 3 drops/min</li> <li>Vapor leak for components: <ul> <li>Light liquid/gas/vapor service: ≤50,000 ppm</li> <li>Heavy liquid service: ≤500 ppm</li> </ul> </li> <li>Certain leaks over a continuous 24-hr period: <ul> <li>Light liquid/gas/vapor service: ≤10,000 ppm</li> <li>Atmospheric Pressure Relief Device (PRD): ≤200 ppm</li> <li>Pump in heavy liquid service: ≤100 ppm</li> </ul> </li> <li>Open-ended lines and end valves must have a blind flange, plug, cap, or a second closed value.</li> </ul>	<ul> <li>SJVAPCD Rules 4409 and 4455 have different gas leak standards before and after 6/30/24. Gas leak standards after 6/30/24 are:</li> <li>Rule 4409 has two gas leak classifications – a major leak as &gt;10,000 ppm and a minor leak as between 200 and 10,000 ppm depending on component and service types.</li> <li>Rule 4455 classifies a major leak as &gt;10,000 ppm and a minor leak as between 100 and 10,000 ppm depending on components and service types. For example, leak standard for PRD is 100 ppm in liquid service.</li> </ul>	Rule 1173 has a different structure on gas leak standards compared to SJVAPCD, BAAQMD, and VCAPCD rules. Some components such as PRD have a lower leak standard (e.g., 100 ppm per SJVAPCD Rule 4455 vs. 200 ppm in Rule 1173). South Coast AQMD recently lowered the LAER/BACT gas/vapor and light liquid service leak standard from 500 ppm to 200 ppm for new or modified sources, except for pumps, compressors, and drains. <sup>^</sup> A public process is underway to amend Rule 1173 with adoption scheduled in Fall 2024.** The rulemaking process will include a Best

Rule No	Ile No Rule Title Current Rule Requirements			nents	Other Agency Rules that Are More	RACM Evaluation	
						Stringent	
		Leak Numbering Three	esholds			BAAQMD Rule 8-18 prohibits use of equipment that leaks VOC in excess of 100 ppm for most equipment categories and sets a 10,000 ppm VOC leak standard for essential	Available Retrofit Control Technology (BARCT) assessment of leak standards which is expected to address the deficiencies identified
		Component	Max # of le	eaks	Max # of leaks	equipment.	in this analysis.
		Туре	for ≤200	)	for >200	VCAPCD 74.10 classifies a major gas leak as ≥10,000 ppm	
			componer	nts	components	and a minor gas leak as between 500 ppm and <10,000	
			inspecte	d	inspected	ppm.	
		Valves	1	0	).5% of number inspected		
		Pumps	2		1% of number inspected		
		Compressors	1		1		
		Atmospheric     PRD	1		1		
		Threaded	1	0	0.5% of number		
		Pipe			inspected		
		Connectors					
		Other     Components	1		1		
		Leak Repair Periods				1	
		Type of Leal	k	Time	Extended		
				Period	Time Period		
		<ul> <li>Light liquid/gas/</li> <li>&gt;500 ppm but ≤</li> </ul>		7 days	7 days		
		ppm • Heavy liquid >10 but ≤500 ppm	00 ppm	7 days	7 days		
		<ul> <li>Heavy liquid &gt;3 drops/min and &gt; ppm but ≤500 p</li> </ul>	>100	7 days			
		<ul> <li>Any leak &gt;10,000 but ≤25,000 ppn</li> </ul>	0 ppm	2 days	3 days		
		• Atmospheric PR ppm but ≤25.00	D >200 3 0 ppm	2 days	3 days		
		<ul> <li>Any leak &gt;25,000</li> </ul>	0 ppm	1 day			
		Heavy liquid >50	00 ppm	1 day			

Rule No	Rule Title	Current Rule Req	quirements	Other Agency Rules that Are More Stringent	RACM Evaluation
		Light liquid >3     drops/min	1 day		

\* There are no analogous requirements in other air agencies that are more stringent than the South Coast AQMD rule being evaluated.

# 2022 AQMP, Appendix VI-A: RACM Demonstration, page 55. December 2, 2022. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-agmp/appendix-vi.pdf?sfvrsn=12.</u>

^ South Coast AQMD Proposed Updates to BACT Guidelines, February 2, 2024. https://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2024/2024-feb2-029.pdf?sfvrsn=2.

\*\* https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1173.



#### NOx Evaluation

Table 6-8 provides a list of NOx rules and regulations in California and other states adopted from October 2021 to March 2024 along with applicable South Coast AQMD rules. Table 6-9 includes a detailed evaluation of the applicable South Coast AQMD NOx rules that correspond to the rules adopted by other agencies provided in Table 6-8.

# TABLE 6-8

# STATIONARY SOURCE NOX RULES AND REGULATIONS ADOPTED FROM OCTOBER 2021 TO MARCH 2024 IN OTHER AIR DISTRICTS AND APPLICABLE SOUTH COAST AQMD RULES AND REGULATIONS

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in
			Coachella Valley
SJVAQMD	Rule 4352 – Solid Fuel-Fired Boilers, Steam Generators and Process Heaters (amended 12/16/21)	Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters (amended 12/4/20); Rule 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (amended 12/7/18); Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters (amended 12/7/18)	Yes
	Rule 4354 – Glass Melting Furnaces (amended 12/16/21)	Rule 1117 – Emissions from Container Glass Melting and Sodium Silicate Furnaces (amended 6/5/20)	No
	Rule 4905 – Natural Gas-Fired, Fan- Type Central Furnaces (amended 3/21/24)	Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces (amended 9/1/23)	Yes
BAAQMD	Rule 9-4 – Nitrogen Oxides from Natural Gas-Fired Furnaces (amended 3/15/23)	Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces (amended 9/1/23)	Yes
	Rule 9-6 – Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters (amended 3/15/23)	Rule 1121 – Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters (amended 9/3/04); Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters (amended 12/7/18)	Yes
	Rule 9-10 – Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators and Process Heaters in Refineries (amended 11/3/21)	Rule 1109.1 – Emission of Oxides of Nitrogen from Petroleum Refineries from Related Operations (adopted 11/5/21)	No

Agency	Other Agency Rules	South Coast AQMD Rules	Sources in
			Coachella Valley
SDAPCD	Rule 69.3.1 – Stationary Gas Turbine Engines (amended 12/9/21)	Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (amended 2/4/22)	Yes
	Rule 69.7 – Landfill Gas Flares (adopted 3/9/23)	Rule 1118.1 – Control of Emissions from Non- Refinery Flares (adopted 1/4/19)	Yes
VCAPCD	Rule 74.35 – Flares (adopted 9/12/23)	Rule 1118.1 – Control of Emissions from Non- Refinery Flares (adopted 1/4/19)	Yes
NYSDEC	6 NYCRR 227 – Stationary Combustion Installations (12/31/21)	Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines (amended 11/3/23); Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (amended 2/4/22); Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters (amended 12/4/20); Rule – 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (amended 12/7/18); Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters (amended 12/7/18)	Yes
CTDEEP	22a-174-22e – Control of Nitrogen Oxides Emissions from Fuel-Burning Equipment at Major Stationary Sources of Nitrogen Oxides (amended 11/13/23)	Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines (amended 11/3/23); Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (amended 1/7/22); Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters (amended 12/4/20)	Yes

TABLE 6-9RACM EVALUATION OF APPLICABLE SOUTH COAST AQMD'S NOX RULES AND REGULATIONS

RULE NO	RULE TITLE	CURRENT RULE REQUIREMENTS	OTHER AGENCY RULES THAT ARE MORE STRINGENT	RACM EVALUATION
1110.2	Emissions from Gaseous-	Applied to all stationary and portable engines rated >50 bhp.	n/a*	Meets RACM.
	and Liquid-Fueled Engines	NOx emission limits:		
	(Amended 11/3/23)	Stationary engines with approved emission control plan: 11		
		ppm		
		Other stationary engines without an emission control plan,		
		biogas-fired: 11 ppm		
		Limits for low-use engines*:		
		• <500 bhp = 45 ppm		
		• ≥500 bhp = 36 ppm		
		* Low use engines <500 hrs/yr or 1 billion Btu/yr. Slightly		
		higher limits are also applicable to landfill or biogas fired		
		engines to account for efficiency.		
		Non-emergency electrical generators: 0.070 lb/MWh.		
		Note: agricultural and non-agricultural engines held to the		
1111	Reduction of NOx	same standards but different compliance schedules applied. For natural gas-fired residential furnaces rated < 175,000	BAAQMD Regulation 9 Rule 4 (Rule 9-4) requires no more than 0.0	South Coast AQMD Rule 1111 has
1111	Emissions from Natural-	Btu/hr, NOx emission limits:	ng/J of NOx after 1/1/29 from natural gas-fired furnaces, including	less stringent NOx emission limits
	Gas-Fired, Fan-Type	<ul> <li>14 ng/J for mobile home furnaces</li> </ul>	wall furnaces and non-residential applications.	than BAAQMD Rule 9-4. A public
	Central Furnaces	<ul> <li>14 ng/J for mobile nome numaces</li> <li>14 ng/J for condensing, non-condensing, and</li> </ul>		process is underway to amend Rule
	(Amended 9/1/23)	weatherized home furnaces		1111 with zero NOx emission limits
	() () () () () () () () () () () () () (	weathenzed nome furnaces		with an anticipated public hearing in
				the 4 <sup>th</sup> guarter of 2024. The proposed
				limits will phase in more quickly than
				those in BAAQMD's regulation.
1118.1	Control of Emissions from	Flare gas NOx emission limits range from 0.018 lbs/MMBtu	n/a*	Meets RACM.
	Non-Refinery Flares	for produced gas to 0.025 lbs/MMBtu for major digester gas		
	(Amended 1/4/19)	and landfill gas. All other flare gas including minor digester		
		gas is required NOx emission limits at 0.06 lbs/MMBtu.		
		Organic liquid storage has NOx emission limit at 0.25		
		lbs/MMBtu and organic liquid loading has NOx limit at 0.034		
		lbs/1,000 gallons loaded.		
1121	Control of Nitrogen Oxides	For natural gas-fired water heaters rated < 75,000 Btu/hr,	BAAQMD Rule 9-6 requires the following NOx emission limits for	BAAQMD Rule 9-6 requires 10 ng/J of
	from Residential Type,	NOx emission limits:	natural gas-fired storage tank water heaters rated < 75,000 Btu/hr:	NOx for water heaters regardless of
	Natural Gas-Fired Water	<ul> <li>40 ng/J (55 ppm) for mobile home</li> </ul>	<ul> <li>10 ng/J for water heaters &gt; 50 gallons (current limit)</li> </ul>	its tank size, while the 10 ng/J NOx
	Heaters (Amended 9/3/04)	<ul> <li>20 ng/J (30 ppm) for residential home</li> </ul>	<ul> <li>0.0 ng/J for water heaters after 1/1/27</li> </ul>	limit applies only to units ≤ 50 gallons
		<ul> <li>10 ng/J (15 ppm) for water heaters ≤ 50 gallons</li> </ul>		in South Coast AQMD Rule 1121. Rule
				9-6 imposes a zero emission NOx

RULE NO	RULE TITLE	CURRENT RULE REQUIREMENTS	OTHER AGENCY RULES THAT ARE MORE STRINGENT	RACM EVALUATION
				limit for residential water heaters by
				2027. A public process is underway to
				amend Rule 1121 with zero NOx
				emission limits with an anticipated
				public hearing in the 4 <sup>th</sup> quarter of
				2024. The proposed limits will phase
				in more quickly than those in
				BAAQMD's regulation for new
1134	Emissions of Oxides of	Pula applies to all stationary gas turbings >0.2 MW	n/a*	buildings. Meets RACM.
1134	Nitrogen from Stationary	Rule applies to all stationary gas turbines $\ge 0.3$ MW.	11/a -	Meets RACM.
	Gas Turbines (Amended	NOx emission limits (@ 15% O2) effective 1/1/24:		
	2/4/22)	<ul> <li>Liquid fuel – turbines located on Outer Continental Shelf (OCS): 30 ppm</li> </ul>		
	~; ~; ~~;	<ul> <li>Natural gas – combined cycle/cogeneration turbine: 2</li> </ul>		
		<ul> <li>Natural gas – combined cycle/cogeneration turbine. 2</li> <li>ppm</li> </ul>		
		<ul> <li>Natural gas – simple cycle turbine: 2.5 ppm</li> </ul>		
		<ul> <li>Produced gas: 9 ppm</li> </ul>		
		<ul> <li>Produced gas. J ppin</li> <li>Produced gas – turbine located on OCS: 15 ppm</li> </ul>		
		Other (including recuperative gas turbines): 12.5 ppm		
	Rule 1146 - Emissions of	Rule 1146 NOx emission limits for industrial/commercial	n/a*	Meets RACM.
	Oxides of Nitrogen from	boilers, steam generators, and process heaters $\geq 5$		
	Industrial, Institutional,	MMBtu/hr:		
	and Commercial Boilers,	Gaseous fuel: 30 ppm		
	Steam Generators, and	<ul> <li>Non-gaseous fuel: 40 ppm</li> </ul>		
	Process Heaters (Amended	Landfill gas: 25 ppm		
	12/4/20)	Digester gas: 15 ppm		
	Rule 1146.1 - Emissions of	<ul> <li>Atmospheric units (5–10 MMBtu/hr): 12 ppm</li> </ul>		
14.45	Oxides of Nitrogen from	<ul> <li>Group I (≥75 MMBtu/hr burning natural gas): 5 ppm</li> </ul>		
1146 1146.1	Small Industrial,	<ul> <li>Group II (≥20 &amp; &lt;75 MMBtu/hr with gaseous fuels)</li> </ul>		
-	Institutional, and	• Fire-tube boilers with previous limits 5–9 ppm: 7		
1146.2	Commercial Boilers, Steam	ppm		
	Generators, and Process	• All other units (with previous limits 5–12 ppm): 9		
	Heaters (Amended	ppm		
	12/7/18)	<ul> <li>All others: 5 ppm</li> </ul>		
	Rule 1146.2 - Emissions of	<ul> <li>Group III (≥5 &amp; &lt;20 MMBtu/hr with gaseous fuels)</li> </ul>		
	Oxides of Nitrogen from	$\circ~$ Fire-tube boilers with previous limits 9–12 ppm: 7		
	Large Water Heaters and	ppm		
	Small Boilers and Process	<ul> <li>All others: 9 ppm</li> </ul>		
	Heaters (Amended 6/7/24)	Thermal fluid heaters: 12 ppm.		

RULE NO	RULE TITLE	CURRENT RU	JLE REQ	UIREMENT	S	OTHER AGENCY RULES THAT ARE MORE STRINGENT	RACM EVALUATION
		Rule 1146.1 NOx emissio boilers, steam generators MMBtu/hr: • Landfill gas: 25 ppm • Digester gas: 15 ppm • Atmospheric units (5- • Fire-tube boilers: 7 pp • Natural gas units: 9 pp • Thermal fluid heaters All other units: 30 ppm	-10 MMBt om	cess heaters be	etween 2-5		
		Rule 1146.2 - For water h ≤ 2 MMBtu/hr fired with, gas. Type 1 units (≤40 (>400,000 - 2,000,000 Bt	or designe 0,000 Bti	ed to be fired w	ith, natural		
		NOx Emission Limits					
		Equipment Cate			Limit		
		Type 1 units, excluding	pool heate		(20 ppm)		
		Type 1 pool heaters			(55 ppm)		
		Type 2 units		14 ng/J	(20 ppm)		
		Zero Emission Limits, Cor	nnliance	Schedule and	llnit Δøe		
		Equipment Category	NOx	Compliance	Unit		
			Limit	Schedule	Age		
			(ppm)		(years)		
		Type 1 Unit	0		15		
		Instantaneous Water Heater≤200,000 Btu/hr	0	Phase I	25		
		Instantaneous water Heater >200,000 Btu/hr	0	Phase II	25		
		Type 1 Pool Heater			15		
		Type 2 Unit	0		25		
		Type 1 High Temperature Unit	0	Phase III	25		

RULE NO	RULE TITLE	CURRENT RULE REQUIREMENTS				OTHER AGENCY RULES THAT ARE MORE STRINGENT	RACM EVALUATION
		Type 2 High Temperature Unit	0	2	5		
		Compliance Dates for	ero Emissio	n Limits			
		Phase Build	hase Building Type		e		
		Phase I New	Buildings	1/1/26			
		Existin	g Buildings	1/1/29			
		New	Buildings	1/1/28			
		Phase II Existing Buildings		1/1/31			
		New	Buildings	1/1/29			
		Phase III Existin	g Buildings	1/1/33			

\* There are no analogous requirements in other air agencies that are more stringent than the South Coast AQMD rule being evaluated.

#### Stationary and Area Source Conclusion

As demonstrated in this RACM evaluation, the requirements in South Coast AQMD rules and regulations are generally as stringent as, or more stringent than, the requirements in other air districts and states. Multiple rules, including Rules 1111 and 1121, are undergoing an amendment process to introduce more stringent emission limits. This RACM demonstration reflects the current rule amendment efforts. Following analysis of both existing and proposed rule requirements, South Coast AQMD concludes that RACM level control is achieved in Coachella Valley.

# CARB Mobile and Area Sources

The CAA requires the implementation of all RACM as expeditiously as practicable and shall provide for attainment of the air quality standards. This section demonstrates that for the 75 ppb 8-hour ozone standard, California's mobile source, consumer products, and pesticide measures meet the RACM requirement in the Coachella Nonattainment Area.

#### **RACM Requirements**

U.S. EPA has interpreted RACM to be those emission control measures that are technologically and economically feasible and when considered in aggregate, would advance the attainment date by at least one year. Section 172(c)(1) of the CAA requires SIPs to provide for the implementation of RACM as expeditiously as practicable. Given the severity of California's air quality challenges, CARB has implemented the most stringent mobile source emissions control program in the nation. CARB's comprehensive strategy to reduce emissions from mobile sources includes stringent emissions standards for new vehicles, in-use programs to reduce emissions from existing vehicle and equipment fleets, cleaner fuels that minimize emissions, and incentive programs to accelerate the penetration of the cleanest vehicles beyond that achieved by regulations alone. Taken together, California's mobile source program meets RACM requirements in the context of ozone nonattainment.

To ensure it continues to meet RACM requirements and achieve its emissions reductions goals in the future, California continues to develop new programs and regulations to strengthen its overall mobile source program and to achieve new emissions reductions from mobile sources.

#### RACM For Mobile Sources

# 1. Waiver Approvals

While section 209 of the CAA preempts other states from adopting emission standards and other emissionrelated requirements for new motor vehicles and engines that differ from the federal standards set by U.S. EPA, the CAA provides California with the ability to seek a waiver or authorization from the federal preemption clause in order to enact emission standards and other emission-related requirements for new motor vehicles and engines, as well as new and in-use off-road vehicles and engines<sup>55</sup> – provided that the California standards are at least as protective as applicable federal standards.

Over the years, California has received waivers and authorizations for over 100 regulations. Some of the most recent California standards and regulations that have received waivers and authorizations are: the Advanced Clean Cars (ACC) Regulations for light duty vehicles (including the Zero Emission Vehicle (ZEV) and the Low-Emission Vehicle III (LEV III) Regulations); the Advanced Clean Trucks Regulation; the Large Spark Ignition (LSI) Engine and Fleets Regulation; the Commercial Harbor Craft (CHC) Regulation; the Transport Refrigeration Unit (TRU) ATCM; the Off Highway Recreational Vehicles Regulation; and the Ocean-Going Vessels At-Berth Regulation. Further, CARB has recently submitted and is awaiting U.S. EPA action on waiver and authorization requests for the Heavy-Duty Omnibus Regulation; In-Use Locomotive Regulation; Advanced Clean Cars II; the In-Use Off-Road Diesel-Fueled Fleets Regulation (2022 Amendments); Advanced Clean Fleets Regulation; the Small-Off Road Engine Standards (2021 Amendments); the Commercial Harbor Craft (CHC) Regulation (2022 Amendments); and the Transport Refrigeration Unit (TRU) Regulation Phase I (2022 Amendments).

Additionally, CARB obtained an authorization from U.S. EPA to enforce adopted emission standards for offroad engines used in yard trucks and two-engine sweepers. CARB adopted the off-road emission standards as part of its "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles," (Truck and Bus Regulation). The bulk of the regulation applies to in-use heavy-duty diesel on-road motor vehicles with a gross vehicle weight rating in excess of 14,000 pounds, which are not subject to preemption under section 209(a) of the CAA and do not require a waiver under section 209(b).

The waiver and authorizations California has received are integral to the success and stringent emission requirements that characterize CARB's mobile source program. Due to California's unique waiver authority under the Act, no other state or nonattainment area has the authority to promulgate mobile source emission standards at levels that are more stringent than the federal standards. Other states can elect to match either the federal standards or the more stringent California standards. As such, no state or nonattainment area has a more stringent suite of mobile source emission control programs than California, implying a de-facto level of control that at least meets, if not exceeds, RACM.

# 2. CARB's Mobile Source Controls

CARB's current mobile source control program, along with efforts at the local and federal level, have been tremendously successful in reducing emissions of air pollutants, resulting in significantly cleaner vehicles and equipment in operation today.

<sup>&</sup>lt;sup>55</sup> Locomotives and engines less than 175 horsepower (hp) used in farm and construction equipment are exempt from California's waiver authority.

CARB developed its 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy)<sup>56</sup> through a multi-step measure development process, including extensive public consultation, to develop and evaluate potential strategies for categories under CARB's regulatory authority that could contribute to expeditious attainment of the 70 parts per billion (ppb) 8-hour ozone standard (70 ppb ozone standard), as well as supporting attainment for the 75 ppb 8-hour ozone standard and other national and State air quality standards. This effort built on the measures and commitments already made in the 2016 State SIP Strategy, and expanded on the scenarios and concepts included in the 2020 Mobile Source Strategy, CARB's multi-pollutant planning effort that identified the pathways forward to achieve the State's many air quality, climate, and community risk reduction goals.

With the 2022 State SIP Strategy, CARB committed to an unprecedented variety of new measures to reduce emissions from the sources under our authority using all mechanisms available. The measures included in the 2022 State SIP Strategy encompass actions to establish requirements for cleaner technologies (both zero emissions and near zero emissions), deploy these technologies into the fleet, and to accelerate the deployment of cleaner technologies through incentives.

# 3. Light- and Medium-Duty Vehicles

Since setting the nation's first motor vehicle exhaust emission standards in 1966 that led to the first pollution controls, California has dramatically tightened emission standards for light-duty vehicles. Through CARB regulations, today's new cars pollute 99% less than their predecessors did thirty years ago. In 1970, CARB required auto manufacturers to meet the first standards to control NOx emissions along with hydrocarbon emissions, which together form smog. The simultaneous control of emissions from motor vehicles and fuels led to the use of cleaner-burning gasoline that has removed the emissions equivalent of 3.5 million vehicles from California's roads.

Light- and medium-duty vehicles are currently regulated under California's Advanced Clean Cars (ACC) program, which includes the Low-Emission Vehicle III (LEV III) and Zero-Emission Vehicle (ZEV) programs. The ACC program combines the control of smog, soot-causing pollutants, and greenhouse gas emissions into a single coordinated package of requirements for model years 2015 through 2025. Since first adopted in 1990, CARB's LEV I and LEV II, and the ZEV Programs have resulted in the production and sales of hundreds of thousands of ZEVs in California. The ACC program has ushered in a new zero emission passenger transportation system, and the success of this program is evident: California is the world's largest market for ZEVs, with a wide variety now available at lower price points, attracting new consumers. In April 2023, California's 2012 target of 1.5 million ZEVs on the road by 2025 was attained two years early, facilitated in part by \$2 billion in ZEV incentive funding and rebates that have been distributed to Californians through programs like the Clean Vehicle Rebate Project and Clean Cars 4 All. In support of

<sup>&</sup>lt;sup>56</sup> CARB 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy) <u>https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy</u>

California's transition to zero emission, in 2020, Governor Newsom signed Executive Order N-79-20, which established a goal that 100% of California sales of new passenger cars and trucks be zero emission by 2035.

Advanced Clean Cars II (ACC II), which was adopted by the CARB Board in August 2022, imposes the next level of low emission and zero emission vehicle standards for model years 2026-2035 that contribute to meeting federal ambient air quality standards and California's carbon neutrality targets. ACC II will rapidly scale down emissions of light-duty passenger cars, pickup trucks and SUVs starting with the 2026 model year through 2035. ACC II also takes the State's already growing zero emission vehicle market and robust motor vehicle emission control rules and augments them to meet more aggressive tailpipe emissions standards and ramp up to 100 percent zero emission sales by 2035 for all new passenger cars, trucks and sport utility vehicles sold in California. ACC II is two-pronged: it will drive the sales of ZEVs and the cleanest-possible plug-in hybrid-electric vehicles (PHEV) to 100% in California by the 2035 model year through the ZEV Regulation, while also reducing smog-forming emissions from new internal combustion engine vehicles through the LEV IV Regulation. For passenger vehicles, the 2022 State SIP Strategy included actions to further increase the penetration of ZEVs by targeting ride-hailing services offered by transportation network companies through the Clean Miles Standard, adopted by the CARB Board in 2021, in order to reduce GHG and criteria pollutant emissions, and promote electrification of the fleet.

CARB is also active in implementing incentive programs for owners of older dirtier vehicles to retire them early. The "car scrap" programs, like Clean Cars 4 All and the recently-phased out Clean Vehicle Rebate Project, provide monetary incentives to replace old vehicles with zero emission vehicles. CARB also has numerous other incentive programs and projects to support the transition of light-duty vehicles to ZEVs, as well as to more broadly support active transportation and other equitable transportation mobility options.

Taken together, California's emission standards, fuel specifications, and incentive programs for on-road light- and medium-duty vehicles represent all measures that are technologically and economically feasible within California, and fully meet the requirements for RACM.

#### 4. Heavy-Duty Vehicles

California's heavy-duty vehicle emissions control program includes requirements for increasingly stringent new engine emission standards and addresses vehicle idling, certification procedures, on-board diagnostics, emissions control device verification, and in-use measures to ensure that emissions from the existing vehicle fleet remain adequately controlled. Taken together, the on-road heavy-duty vehicle program was designed in past decades to achieve an on-road heavy-duty diesel fleet with 2010 engines emitting 98 percent less NOx and PM2.5 than trucks sold in 1986. Looking forward, CARB's on-road heavyduty vehicle programs are driving towards zero emission, while also setting the most stringent emissions standards and in-use requirements for the remaining combustion vehicles on California's roads.

In 2013, California recognized that heavy-duty engines could be cleaner and established optional low-NOx standards for heavy-duty diesel engines (Optional Reduced Emissions Standards for Heavy-Duty Engines regulation), with the most aggressive standard being 0.02 g/bhp-hr, 90% below the 2010 federal standard.

Further, in 2021, CARB adopted the Heavy-Duty Engine and Vehicle Omnibus Regulation (Omnibus Regulation) which made the 0.02 g/bhp-hr a mandatory standard beginning in 2027, and comprehensively overhauled how NOx emissions from new heavy-duty engines are regulated in California. The Omnibus Regulation also includes in-use standards that significantly reduce tailpipe NOx emissions during most vehicle operating modes, and revisions to the emissions warranty, useful life, emissions warranty and reporting information and corrective action procedures, and durability demonstration procedures.

To drive the heavy-duty sector to zero emissions, CARB has a suite of regulations that include manufacturing requirements, fleet requirements, and a powertrain standard and certification program. In 2021, CARB adopted the Advanced Clean Trucks regulation (ACT), a first of its kind regulation requiring medium- and heavy-duty manufacturers to produce ZEVs as an increasing portion of their sales beginning in 2024. This regulation is expected to result in roughly 100,000 heavy-duty ZEVs by 2030 and nearly 300,000 ZEVs by 2035. The complementary Advanced Clean Fleets (ACF) Regulation was adopted in 2023, and was developed to works in conjunction with the ACT regulation; ACT helps ensure that ZEVs are available for sale while ACF accelerates ZEV adoption in the medium-to heavy-duty sectors by setting zero emission requirements for fleets. The ACF regulation targets drayage trucks, public fleets, and other high priority fleets with 50 or more trucks or entities with trucks and \$50 million in annual revenues. This effort is part of a comprehensive strategy to achieve a zero emission truck and bus fleet by 2045 everywhere feasible, and significantly earlier for certain well-suited market segments such as last mile delivery, drayage, and government fleets.

Prior to ACT and ACF, in 2019, CARB adopted the Zero Emission Powertrain Certification Regulation, which established a heavy-duty zero emission powertrain standard and certification process that will help reduce variability in the quality and reliability of heavy-duty electric and fuel cell vehicles, ensure information regarding these vehicles and their powertrains are effectively and consistently communicated to purchasers, and accelerate progress towards greater vehicle reparability. This certification process will be required by the Zero Emission Airport Shuttle regulation starting in model year 2026 and the ACT regulation starting in model year 2024.

While heavy-duty engine technology has become significantly cleaner in the past few decades, the long useful lives of some heavy-duty engines means that older, higher-emitting trucks remain on the road for many years after newer generations of engine standards have gone into effect. To address these emission sources, CARB's heavy-duty program also targets in-use emission reductions. The Cleaner In-Use Heavy-duty Truck Regulation (Truck and Bus Regulation) impacts approximately one million inter- and intra-state vehicles, and required upgrades to newer, cleaner engines. Starting in 2012, the Truck and Bus Regulation phased in requirements so that by 2014, nearly all vehicles operating in California had PM emission controls, and by 2023 nearly all vehicles met 2010 model year engine emissions levels. The regulation applies to nearly all diesel fueled trucks and buses with a GVWR greater than 14,000 pounds that are privately or federally owned, including on-road and off-road agricultural yard goats, cargo handling equipment, drayage trucks, solid waste collection vehicles, and school buses. To further control emissions from the in-use fleet, CARB adopted in 2021 the first-of-its-kind Clean Truck Check (Heavy-Duty Inspection and Maintenance Program), which requires periodic demonstration that vehicles' emissions control

systems are properly functioning in order to legally operate within the State. This regulation is designed to achieve criteria emissions reductions by ensuring that malfunctioning emissions control systems are timely repaired.

CARB has also in place additional fleet rules to drive the adoption and use of zero emission technologies in specific sectors. In addition to the ACF Regulation that was described above, there are a suite of regulations driving zero emission technologies in certain well-suited market segments. In 2018, CARB adopted the Innovative Clean Transit (ICT) Regulation, which requires all public transit agencies to gradually transition to a 100 percent zero emission bus (ZEB) fleet. The Zero-Emission Airport Shuttle Bus Regulation was adopted in 2019 and requires airport shuttle operators to transition to 100 percent zero emission vehicle technologies. Vehicles like airport shuttles that operate on fixed routes, have stop-andgo operations, maintain low average speeds, and in a central location are ideal candidates for targeting zero emission technologies. Airport shuttle operators must begin adding zero emission shuttles to their fleets in 2027 and complete the transition to ZEVs by the end of 2035. The Regulation applies to airport shuttle operators who own, operate, or lease vehicles at any of the 13 California airports regulated under this rule (regulated airports), including Palm Springs International Airport, Los Angeles International Airport, John Wayne Orange County Airport, Hollywood Burbank Airport, Ontario International Airport, and Long Beach Airport.

Other significant fleet and in-use control measures CARB has in place include: the Drayage (Port or Rail Yard) Regulation; the Public Agency and Utilities Regulation; the Solid Waste Collection Vehicle Regulation; the Heavy-Duty (Tractor-Trailer) Greenhouse Gas (GHG) Regulation, the Airborne Toxic Control Measures (ATCM) to Limit Diesel-Fueled Commercial Motor Vehicle Idling; the Heavy-Duty Diesel Vehicle Inspection Program; the Periodic Smoke Inspection Program (PSIP); the, Fleet Rule for Transit Agencies; the Lower-Emission School Bus Program; and Heavy-Duty Truck Idling Requirements.

In addition, CARB's significant investment in incentive programs provides an additional mechanism to achieve maximum emission reductions from this source sector. California has a variety of programs to incentivize clean heavy-duty vehicles that include the Carl Moyer Air Quality Standards Attainment Program (Moyer Program), the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project, the Truck Loan Assistance Program, the Low Carbon Transportation Program, the Volkswagen Environmental Mitigation Trust, and AB 617 Community Air Protection Incentives for On-Road Heavy-Duty Vehicles.

Taken together, California's emission standards, fuel specifications, and incentive programs for on-road heavy-duty vehicles represent all measures that are technologically and economically feasible within California, and fully meet the requirements for RACM.

5. Off-Road Vehicles and Equipment

California regulations for off-road equipment include not only increasingly stringent emission standards for new off-road diesel engines, but also in-use requirements and idling restrictions. CARB has programs in place to control emissions from various types of new off-road vehicles and equipment. CARB also has in-use programs and fleet requirements for off-road vehicles and equipment, including the Large Spark-

Ignition Engine Fleet Requirements Regulation and the In-Use Off-Road Diesel Fueled Fleets Regulation (Off-Road Regulation), which was amended in November 2022, and the Zero-Emission Off-Road Forklift regulation, which the Board adopted in June 2024. Incentive programs include the Clean Off-Road Equipment (CORE) Voucher Incentive Project, the Moyer Program, and the Funding Agricultural Replacement Measures for Emission Reductions (FARMER) program. CARB adopted amendments to the Small Off-Road Engine (SORE) regulations in December 2021, the Transport Refrigeration Unit (TRU) Air Toxic Control Measure Phase 1 amendments in February 2022, and the In-Use Locomotive Regulation in November 2022.

CARB's in-use requirements for off-road equipment include the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation), adopted in 2010 and amended in 2022, which is an extensive program designed to accelerate the penetration of the cleanest equipment into California's fleets, and impose idling limits on off-road diesel vehicles. The program goes beyond emission standards for new engines through comprehensive in-use requirements for legacy fleets. The 2022 amendments to the Off-Road Regulation create additional requirements to the currently regulated fleets by targeting the oldest and dirtiest equipment that was allowed to operate indefinitely under the prior regulatory structure. The 2022 amendments require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California, while prohibiting the addition of high-emitting vehicles to a fleet, and requiring the use of R99 or R100 renewable diesel in off-road diesel vehicles.

The Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation applies to operators of forklifts, sweeper/scrubbers, industrial tow tractors, and airport ground support equipment (GSE). The 2006 LSI rulemaking and 2010 amendments required operators of in-use fleets to achieve specific hydrocarbon + NOx fleet average emission level standards that became more stringent over time. In June 2024, the Board adopted the Zero-Emission Forklift regulation, which is designed to phase out LSI forklifts by 2038 by accelerating the transition of LSI engine powered forklifts to zero emission technology. The regulation requires forklift fleets to transition spark-ignited forklifts (e.g., propane and gasoline forklifts) to zero emission technology starting in 2026 with the oldest, highest-emitting forklifts being phased out first.

CARB adopted amendments to the SORE regulations in December 2021 that will accelerate the transition of SORE equipment to zero emission equipment. Deployment of zero emission equipment is key to meeting the expected emission reductions in the 2016 State SIP Strategy. As discussed in the 2016 and 2022 State SIP Strategies, CARB is also developing new requirements to transition diesel-powered TRU to zero emission technology in two phases. CARB adopted the Phase 1 amendments to the existing TRU ATCM in February 2022, which requires the transition of diesel-powered truck TRUs to zero emission.

Further, CARB implements a number of incentive programs and projects to advance the turnover of offroad equipment to cleaner technologies. The Moyer Program has provided funding towards on- and offroad equipment for decades. CORE is a newer project that is intended to accelerate deployment of advanced technology in the off-road sector and targets commercial-ready products that have not yet achieved a significant market foothold. For engines and equipment used in agricultural processes, CARB has the FARMER program to support fleet turnover to cleaner engines. Taken together, California's comprehensive suite of emission standards, fuel specifications, and incentive programs for off-road vehicles and engines represent all measures that are technologically and economically feasible within California, and fully meet the requirements for RACM.

6. Locomotives

The recently adopted In-Use Locomotive Regulation accelerates the adoption of advanced, cleaner technologies for locomotive operations, including zero emission technologies. The regulatory elements include a spending account and idling limits (both beginning in 2024), and in-use operational requirements that begin in 2030. Spending account funds will be used to fund turnover to cleaner locomotives, rail equipment, and/or related infrastructure, with a structure that requires locomotive operators to fund their own trust account based on the emissions created by their locomotive operations in California so that the dirtier the locomotive, the more funds must be set aside. All locomotives with automatic shutoff devices (AESS) are subject to idling requirements of less than 30 minutes, unless for an exempted for reasons like maintaining air brake pressure or to perform maintenance. Starting in 2030, only locomotives less than 23 years old would be able to be used in California. Switchers, industrial, and passenger locomotives with original engine build dates of 2030 or newer would be required to operate in a zero emission configuration in California. Freight line haul locomotives with original engine build dates of 2035 and newer would be required to operate in a zero emission configuration in California.

7. Marine Sources

Because attainment of the standard in the Coachella Valley is dependent on emission reductions achieved in the upwind South Coast Air Basin, this document describes the emission control measures for marine sources that may not be present within the Coachella Valley nonattainment area.

Commercial harbor craft include any private, commercial, government, or military marine vessels including, but not limited to ferries, excursion vessels, tugboats (including ocean-going tugboats), barges, and commercial passenger fishing boats. CARB's Commercial Harbor Craft Regulation (CHC Regulation) was adopted in 2007 to reduce toxic and criteria emissions to protect public health and subsequently amended in 2010. As described in the 2022 State SIP Strategy, the Board also adopted amendments to the CHC Regulation in March 2022, which establish expanded and more stringent in-use requirements to cover more vessel categories and mandate accelerated deployment of zero emission and advanced technologies in vessel categories where technology feasibility has been demonstrated.

To reduce emissions from Ocean Going Vessels (OGV), CARB has adopted to date the Ocean-Going Vessel Fuel Regulation "Fuel Sulfur and Other Operational Requirements for Ocean-Going Vessels within California Waters and 24 Nautical Miles of the California Baseline" (2008) and the Ocean-Going Vessels At-Berth Regulation (2007). The At-Berth Regulation requires container ships, passenger ships, and refrigerated-cargo ships at six California ports to meet compliance requirements for auxiliary engines while they are docked, including emission or power reduction requirements. Reduced vessel speeds also can provide emission reduction benefits, and incentive programs are operated by local air districts along the

California coast to incentivize lower speeds. To control emissions from personal watercraft, CARB also has had in place exhaust emission standards for new outboard and personal watercraft engines since 1998.

Taken together, California's comprehensive suite of emission standards, fuel specifications, and in-use programs for marine vehicles and engines represent all measures that are technologically and economically feasible within California and fully meet the requirements for RACM.

8. Fuels

As mentioned earlier, cleaner burning fuels also play an important role in reducing emissions from motor vehicles and engines in these source categories. CARB has adopted standards to ensure that the fuels sold in California are the cleanest in the nation. These programs include the California Reformulated Gasoline program (CaRFG), which controls emissions from gasoline, and the Ultra-Low Sulfur Diesel requirements (2006), which provide the nation's cleanest diesel fuel specifications and help to ensure that diesel fuels burn as cleanly as possible and work synergistically with cleaner-operating heavy-duty trucks equipped with advanced emission control systems that debuted in 2007, and the Low Carbon Fuel Standard. These fuel standards, in combination with engine technology requirements, ensure that California's transportation system achieves the most effective emission reductions possible.

Taken together, California's fuel specifications and other fuels requirements represent all measures that are technologically and economically feasible within California, and fully meets the requirements for RACM.

# 9. Mobile Source Summary

California's long history of comprehensive and innovative emissions control has resulted in the most stringent mobile source control program in the nation. U.S. EPA has previously acknowledged the strength of the program in their approval of CARB's regulations and through the waiver process. In its 2020 approval of the Coachella Valley's 75 ppb 8-hour ozone plan,<sup>57</sup> which included the State's current program and new measure commitments, U.S. EPA found that, "there are no additional RACM that would advance attainment of the 2008 ozone NAAQS in the Coachella Valley by at least one year." More recently, in June of 2024, U.S. EPA approved the Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard.<sup>58</sup> In its proposal for that action, U.S. EPA found that,

<sup>&</sup>lt;sup>57</sup> U.S. EPA, Approval of Air Quality Implementation Plans; California; Coachella Valley; 2008 8-Hour Ozone Nonattainment Area Requirements, 85 Fed. Reg. 57714 (September 16, 2020).

https://www.federalregister.gov/documents/2020/09/16/2020-19162/approval-of-air-quality-implementation-plans-california-coachella-valley-2008-8-hour-ozone

<sup>&</sup>lt;sup>58</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, 89 Fed. Reg. 49815 (June 12, 2024) https://www.govinfo.gov/content/pkg/FR-2024-06-12/pdf/2024-12786.pdf

"The Coachella Valley Ozone Plan provides for implementation of all RACM necessary to demonstrate expeditious attainment of the 1997 8-hour ozone standards in the Coachella Valley."<sup>59</sup>

In addition, U.S. EPA has provided past determinations that CARB's mobile source control programs meet Best Available Control Measure (BACM) requirements, which are more stringent than RACM, as part of their 2019 approval of the South Coast's 24-hour PM2.5 Plan:

"Overall, we believe that the program developed and administered by CARB and SCAG provide for the implementation of BACM for PM2.5 and PM2.5 precursors in the South Coast nonattainment area."<sup>60</sup>

Since then, CARB has continued to substantially enhance and accelerate reductions from our mobile source control programs through the implementation of more stringent engine emissions standards, inuse requirements, incentive funding, and other policies and initiatives as described in the preceding sections.

The CARB process for developing the State measures included an extensive public process and is consistent with U.S. EPA RACM guidance. Through this process, CARB found that with the current mobile source control program including measures already adopted from the 2022 State SIP Strategy, there are no additional reasonable available control measures that would advance attainment of the 75 ppb 8-hour ozone standard in the Coachella Valley ozone nonattainment area. As a result, California's mobile source control programs fully meet the requirements for RACM.

#### **RACM for Consumer Products**

Consumer products are defined as chemically formulated products used by household and institutional consumers. For thirty years, CARB has taken actions pertaining to the regulation of consumer products. Three regulations have set VOC limits for 129 consumer product categories. These regulations, referred to as the Consumer Product Program, have been amended frequently, and progressively stringent VOC limits and reactivity limits have been established. These are: the Regulation for Reducing VOC Emissions from Antiperspirants and Deodorants; the Regulation for Reducing Emissions from Consumer Products; and the Regulation for Reducing the Ozone Formed from Aerosol Coating Product Emissions, and the Tables of Maximum Incremental Reactivity Values. The 2016 State SIP Strategy included commitments to further strengthen the program through additional emission reductions, and toward this end, CARB has submitted

<sup>59</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, 89 Fed. Reg. 26817 (April 16, 2024).

https://www.federalregister.gov/documents/2024/04/16/2024-08121/approval-and-promulgation-ofimplementation-plans-state-of-california-coachella-valley-extreme

<sup>&</sup>lt;sup>60</sup> U.S. EPA, Air Quality State Implementation Plans; Approvals and Promulgations: California; South Coast Moderate Area Plan for the 2006 PM2.5 Standards; Correction of Deficiency, 83 Fed. Reg. 5923 (February 12, 2018). https://www.federalregister.gov/documents/2018/02/12/2018-02677/air-quality-state-implementation-plans-approvals-and-promulgations-california-south-coast-moderate

to U.S. EPA lower VOC emission limits for seven consumer product categories. Additionally, a voluntary regulation, the Alternative Control Plan, has been adopted to provide compliance flexibility to companies. The program's most recent rulemaking occurred in 2021 with amendments to Consumer Products Regulation and Method 310.

U.S. EPA also regulates consumer products. U.S. EPA's consumer products regulation was promulgated in 1998, however, federal consumer products VOC limits have not been revised since their adoption. U.S. EPA also promulgated reactivity limits for aerosol coatings. As with the general consumer products, California's requirements for aerosol coatings are more stringent than the U.S. EPA's requirements. Other jurisdictions, such as the Ozone Transport Commission states, have established VOC limits for consumer products which are modeled after the California program. However, the VOC limits typically lag those applicable in California.

U.S. EPA has also confirmed the stringency of California's Consumer Products program. In its May 2024 proposal for the approved Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard, they stated that,

"we find that CARB's consumer products program generally exceeds the controls in place throughout other areas of the country. The additional commitments included in the 2016 State Strategy further strengthen this program by achieving additional VOC reductions."<sup>61</sup>

In summary, California's Consumer Products Program, with the most stringent VOC requirements applicable to consumer products, represent all measures that are technologically and economically feasible within California, and fully meets the requirements for RACM. There are no additional reasonable available control measures that would advance attainment of the 75 ppb 8-hour ozone standard in the Coachella Valley ozone nonattainment area.

# **RACM for Pesticides**

The Department of Pesticide Regulation (DPR) is the State agency responsible for regulating the application of pesticides, which are a source of VOCs in the Coachella Valley nonattainment area. California began including in the SIP controls to reduce VOC emissions from pesticide applications in the 1994 Ozone SIP. The 1994 Ozone SIP included a commitment to reduce VOC emissions from pesticide use 20% below the 1990 baseline emission levels by 2005, with flexibility to achieve reductions of less than 20 percent if less pesticidal VOC emissions reductions were needed in a given district. This commitment, known as the 1994 Pesticide Element, governed the application of agricultural and structural pesticides in five California

<sup>&</sup>lt;sup>61</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, 89 Fed. Reg. 26817 (April 16, 2024). https://www.federalregister.gov/documents/2024/04/16/2024-08121/approval-and-promulgation-of-implementation-plans-state-of-california-coachella-valley-extreme

nonattainment areas: South Coast, San Joaquin Valley, Sacramento Metro, Ventura County, and the Southeast Desert, which includes the Coachella Valley.

Under the Pesticide Element of the 1994 Ozone SIP, California's commitment for the Southeast Desert nonattainment area was to adopt and submit to U.S. EPA by 1997, any regulations necessary to reduce VOC emissions resulting from agricultural and structural pesticides by 20 percent of the 1990 base year emissions.<sup>62</sup>

DPR compiles and publishes annual reports on VOC emissions from pesticides. In its latest report, DPR identified that VOC emissions in the Southeast Desert nonattainment area were 73 percent lower than the 1990 base year, and remain in compliance with the SIP goal benchmark of 20 percent below 1990 levels.<sup>63</sup> Beyond ensuring that the control measures in the Southeast Desert nonattainment area are maintaining that VOC emissions from pesticides do not exceed the prescribed limits, DPR assessment indicates that no other state, aside from California, is required to adopt into their SIP measures to reduce VOC emissions from pesticides. This requirement suggests that the California pesticide control program exceeds the RACT threshold of 'reasonably available' control technologies, and meet at least the more stringent threshold of "Best available" control technologies (BACT).

Finally, the pesticide control program currently being implemented in the Southeast Desert, including the Coachella Valley, has been found by U.S. EPA to meet RACT/RACM requirements. In 2012, as part of their final approval of California's 2009 Field Fumigant Regulations and the Revised SIP Commitment for the SJV, U.S. EPA evaluated California's field fumigant regulations for the South Coast, Ventura County, the Southeast Desert, San Joaquin Valley, and Sacramento Metropolitan nonattainment areas, and concluded that the controls met RACT requirements:

"[U.S.] EPA believes, based on the information provided in the CDPR's alternatives analysis, and the research cited to support it, that CDPR has demonstrated that the proposed regulations are stringent enough to implement RACT-level controls on the application of pesticides."<sup>64</sup>

U.S. EPA has also approved the RACM demonstration in the 80 ppb 8-hour ozone SIPs for the South Coast and San Joaquin Valley, including the VOC control measures,<sup>65</sup> as well as the RACM demonstration in the

<sup>&</sup>lt;sup>62</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; California — Ozone, 62 Fed. Reg. 1150 (January 8, 1997). <u>https://www.govinfo.gov/content/pkg/FR-1997-01-08/pdf/97-144.pdf</u>

<sup>&</sup>lt;sup>63</sup> California DPR, Annual Report on Volatile Organic Compound Emissions from Pesticides for 1990 – 2022, April 2024. https://www.cdpr.ca.gov/docs/emon/vocs/vocproj/2022\_voc\_annual\_report.pdf

<sup>&</sup>lt;sup>64</sup> U.S. EPA, Technical Support Document for Final Rule (August 14, 2012). https://www.regulations.gov/document/EPA-R09-OAR-2012-0194-0023

<sup>&</sup>lt;sup>65</sup> U.S. EPA, Approval of Air Quality Implementation Plans; California; San Joaquin Valley; Attainment Plan for 1997 8-Hour Ozone Standards, 77 Fed. Reg. 12652 (March 1, 2012). <u>https://www.govinfo.gov/content/pkg/FR-2012-03-01/pdf/2012-4674.pdf</u> and U.S. EPA, Approval of Air Quality Implementation Plans; California; South Coast; Attainment Plan for 1997 8-Hour Ozone Standards, 77 Fed. Reg 12674 (March 1, 2012).

https://www.federalregister.gov/documents/2012/03/01/2012-4673/approval-of-air-quality-implementationplans-california-south-coast-attainment-plan-for-1997-8-hour

PM2.5 SIP for the South Coast.<sup>66</sup> Finally, U.S. EPA has also determined that California's pesticide control program meets the more stringent control level requirements of BACM, as was affirmed in the Technical Support Document for U.S. EPA's action to approve California's 2009 Field Fumigant Regulations and the Revised SIP Commitment, <sup>67</sup> wherein they reference their prior approval of the PM10 SIPs for South Coast and Southeast Desert<sup>68</sup> and other SIPs:

"The approval of the fumigant regulations is consistent with these approved RACM/BACM demonstrations and therefore will not interfere with these SIPs' compliance with the RACM/BACM requirements."

Beyond the VOC controls provided by the pesticide control program currently being implemented, the 2022 State SIP Strategy also includes a measure to reduce emissions associated with the use of a pesticide known as 1,3-Dichloropropene (1,3-D), which is considered a VOC. This measure was developed to limit short-term air concentrations of 1,3-D, a fumigant used to control nematodes, insects, and disease organisms in soil, by shifting application methods to those with lower emissions, such as requiring applicators to use totally impermeable film tarpaulins or other mitigation measures. DPR is in the process of developing this regulation, which has a targeted effective date of 2024.

In summary, DPR's pesticide regulations represent all measures that are technologically and reasonably available in the context of Coachella's ozone attainment plan, and meets RACM. There are no additional measures that, when considered in aggregate, would advance the attainment date by at least one year.

## Transportation Control Strategies and Transportation Control Measures

SCAG's RACM evaluation of transportation control strategies and transportation control measures are included in Appendix I.

## Supplemental RACT Demonstration

The CAA requires that areas classified as "moderate" nonattainment and higher must develop and submit a demonstration that their current air pollution regulations fulfill the RACT requirements for major stationary sources and sources covered by U.S. EPA's CTGs/ACTs. For areas classified as "extreme" nonattainment, CAA Section 182(e) defines a major stationary source threshold of 10 tons per year (tpy) of VOC or NOx. RACT requires implementation of the lowest emission limitation that an emission source

https://www.govinfo.gov/content/pkg/FR-2011-11-09/pdf/2011-27620.pdf

<sup>67</sup> U.S. EPA *Technical Support Document for Final Rule* (August 14, 2012). https://www.regulations.gov/document/EPA-R09-OAR-2012-0194-0023

<sup>&</sup>lt;sup>66</sup> U.S. EPA, Approval of Air Quality Implementation Plans; California; South Coast; Attainment Plan for 1997 PM2.5 Standards, 76 Fed. Reg. 69928 (November 9, 2011).

<sup>&</sup>lt;sup>68</sup> U.S. EPA, Approval and Promulgation of State Implementation Plans for Air Quality Planning Purposes; California-South Coast and Coachella, 70 Fed. Reg. 69081 (November 14, 2005).

https://www.federalregister.gov/documents/2005/11/14/05-22463/approval-and-promulgation-of-stateimplementation-plans-for-air-quality-planning-purposes

is capable of meeting by the application of a control technology that is reasonably available, considering technological and economic feasibility.

U.S. EPA approved RACT SIPs for the South Coast AQMD for the 1997 and 2008 8-hour ozone standards, which included rules applicable to the Coachella Valley.<sup>69</sup> U.S. EPA also approved South Coast AQMD's revised RACT rules in response to the 1988 SIP call and 1990 CAA amendments.<sup>70</sup> The most recent comprehensive RACT SIP was developed in 2020 for the 2015 ozone standard and considered major stationary sources emitting greater than or equal to 25 tpy in Coachella Valley.<sup>71</sup> The only RACT deficiency identified in that demonstration was related to Rule 1115 - Motor Vehicle Assembly Line Coating Operations. Rule 1115 was amended in March 2022 to address the RACT deficiency. In addition, the RACT SIP for the 2015 ozone standard included a negative declaration for the 2007 Paper, Film, and Foil Coatings CTG (EPA 453/R-07-003) as there are no sources in South Coast AQMD that are subject to the CTG. The CTG requirements only apply to facilities with a potential to emit at least 25 tpy of VOC from coatings. In Coachella Valley, the 2018 VOC emissions from paper coatings are approximately 3 tpy. Thus, there are no sources applicable to the CTG.

The Coachella Valley Extreme Area Plan for the 1997 Ozone Standard included a supplemental RACT demonstration to address sources subject to the lower major stationary source threshold of 10 tpy for "extreme" nonattainment areas.<sup>72</sup> Although two additional Title V facilities were identified, these facilities were determined to be subject to and compliant with South Coast AQMD's rules which represent RACT level control. Staff reviewed the list of Title V facilities in 2023 to determine if there were any changes. The two additional facilities identified in the supplemental RACT demonstration for the 1997 ozone standard are no longer in the Title V program. No new Title V facilities in Coachella Valley were identified. Thus, all applicable sources in the Coachella Valley have already been determined to implement RACT. While U.S. EPA did not explicitly address RACT in its recent proposed approval of the Coachella Valley Extreme Area Plan for the 1997 Ozone Standard, U.S. EPA noted that it would "consider the rules in relevant RACT

<sup>&</sup>lt;sup>69</sup> U.S. EPA, Revisions to the California State Implementation Plan, South Coast Air Quality Management District, 73 Fed. Reg. 76947 (December 18, 2008). <u>https://www.federalregister.gov/documents/2008/12/18/E8-29641/revisions-to-the-california-state-implementation-plan-south-coast-air-quality-management-district;</u> Approval of California Air Plan Revisions, South Coast Air Quality Management District, 82 Fed. Reg. 43850 (September 20, 2017). <u>https://www.federalregister.gov/documents/2017/09/20/2017-19693/approval-of-california-air-plan-revisions-south-coast-air-quality-management-district</u>

<sup>&</sup>lt;sup>70</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; California State Implementation Plan Revision, Mojave Desert Air Quality Management District and South Coast Air Quality Management District, 60 Fed. Reg. 31081 (June 13, 1995). <u>https://www.govinfo.gov/content/pkg/FR-1995-06-13/pdf/95-14391.pdf</u>; Approval and Promulgation of Implementation Plans; California State Implementation Plan Revision, San Diego County Air Pollution Control District, South Coast Air Quality Management District, and Ventura County Air Pollution Control District, 60 Fed. Reg. 40285 (August 8, 1995). <u>https://www.govinfo.gov/content/pkg/FR-1995-08-08/pdf/95-19504.pdf</u>

<sup>&</sup>lt;sup>71</sup> South Coast AQMD, Draft Final Staff Report for 2015 8-Hour Ozone Standard Reasonably Available Control Technology (RACT) Demonstration, June 2020. <u>https://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2020/2020-Jun5-028.pdf?sfvrsn=8</u>

<sup>&</sup>lt;sup>72</sup> South Coast AQMD, Final Coachella Valley Extreme Area Plan for the 1997 8-Hour Ozone Standard, December 2020. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/2-final-coachella-valley-extreme-area-plan-for-1997-8-hour-ozone-standard.pdf?sfvrsn=6</u>

demonstrations as potentially addressing RACM demonstration requirements."<sup>73</sup> U.S. EPA subsequently took final action to approve the RACM demonstration.<sup>74</sup>

In its 2008 ozone standard SIP requirements rule, U.S. EPA notes that "sources already addressed by RACT determinations for the 1-hour and/or 1997 ozone NAAQS do not need to implement additional controls to meet the 2008 ozone NAAQS RACT requirement."<sup>75</sup> Applicable sources in the Coachella Valley have already been addressed by RACT determinations for the 1979, 1997, 2008, and 2015 ozone standards through previous SIP revisions. These sources are subject to and compliant with South Coast AQMD's rules. In addition, review of U.S. EPA's CTGs and ACTs as well as the comprehensive RACM demonstration, presented in the previous section, did not reveal any new control technologies for RACT consideration.<sup>76</sup> Thus, applicable sources in Coachella Valley already implement RACT. No new RACT rules are proposed in this Plan.

## **Contingency Measures**

CAA Sections 172(c)(9) and 182(c)(9) require contingency measures if an ozone nonattainment area fails to meet the RFP milestones or attain the national primary ambient air quality standard by the attainment date. South Coast AQMD addressed the contingency measure requirement for the 2008 ozone standard through a separate SIP revision for the Coachella Valley.<sup>77</sup> The SIP revision contained CARB's Smog Check Contingency Measure and a commitment to consider amending Rule 463 – Organic Liquid Storage to introduce a contingency measure to require more frequent Optical Gas Imaging (OGI) inspections to facilitate leak detection and repair. In addition, an infeasibility analysis was performed to demonstrate that there are no additional opportunities for contingency measures in the Coachella Valley. South Coast AQMD adopted Rule 463, including the contingency measure, on June 7, 2024.

<sup>&</sup>lt;sup>73</sup> U.S. EPA, Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, 89 Fed. Reg. 26817 (April 16, 2024). https://www.federalregister.gov/documents/2024/04/16/2024-08121/approval-and-promulgation-of-

implementation-plans-state-of-california-coachella-valley-extreme

<sup>&</sup>lt;sup>74</sup> Approval and Promulgation of Implementation Plans; State of California; Coachella Valley; Extreme Attainment Plan for 1997 8-Hour Ozone Standards, 89 Fed. Reg. 49815 (June 12, 2024).

https://www.federalregister.gov/documents/2024/06/12/2024-12786/approval-and-promulgation-ofimplementation-plans-state-of-california-coachella-valley-extreme

<sup>&</sup>lt;sup>75</sup> U.S. EPA, Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements, 80 Fed. Reg. 12264 (March 6, 2015).

https://www.federalregister.gov/documents/2015/03/06/2015-04012/implementation-of-the-2008-nationalambient-air-quality-standards-for-ozone-state-implementation

<sup>&</sup>lt;sup>76</sup> U.S. EPA, Control Techniques Guidelines and Alternative Control Techniques Documents for Reducing Ozone-Causing Emissions. <u>https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-</u> <u>alternative-control-techniques</u>

<sup>&</sup>lt;sup>77</sup> South Coast AQMD, Coachella Valley Contingency Measure SIP Revision for the 2008 8-Hour Ozone Standard Final Staff Report, March 2024. <u>https://www.aqmd.gov/docs/default-source/clean-air-plans/ozone-plans/coachella-valley-contingency-measure-sip-revision/c-final-coachella-valley-contingency-sip-staff-report.pdf?sfvrsn=6</u>

## **Transportation Conformity**

## Introduction

CARB has prepared the motor vehicle emissions budget (MVEB)<sup>78</sup> for the Coachella Valley Ozone Plan. The MVEB is the maximum allowable emissions from motor vehicles within a nonattainment area and is used for determining whether transportation plans and projects conform to the applicable SIP.

Transportation conformity is the federal regulatory procedure for linking and coordinating the transportation and air quality planning processes through the MVEB established in the SIP. Under Section 176(c) of the CAA, federal agencies may not approve or fund transportation plans and projects unless they are consistent with the regional SIP. In addition, conformity with the SIP requires that transportation activities do not (1) cause or contribute to new air quality violations, (2) increase the frequency or severity of any existing violation, or (3) delay the timely attainment of NAAQS. Therefore, quantifying on-road motor vehicle emissions and comparing those emissions with a budget established in the SIP determine transportation conformity between air quality and transportation planning.

The MVEBs are set for each criteria pollutant or its precursors for each milestone year and the attainment year of the SIP. Subsequent transportation plans and programs produced by transportation planning agencies must demonstrate that the emissions from the proposed plan, program, or project do not exceed the MVEBs established in the applicable SIP. The MVEBs established in this SIP apply as a "ceiling" or limit on transportation emissions for the SCAG for the years in which they are defined and for all subsequent years until another year for which a different budget is specified, or until a SIP revision modifies the budget. For the Coachella Valley Ozone Plan, the interim and attainment years of the SIP (also referred to as the plan analysis years) are 2026, 2029, and 2031.

## Methodology

The MVEB for the Plan is established based on guidance from the U.S. EPA on the motor vehicle emission categories and precursors that must be considered in transportation conformity determinations as found in the transportation conformity regulation and final rules as described below.

The MVEB must be clearly identified, precisely quantified, and consistent with applicable CAA requirements. Further, it should be consistent with the Plan's emission inventory and control measures.

<sup>&</sup>lt;sup>78</sup> Federal transportation conformity regulations are found in 40 CFR Part 51, subpart T – Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. of the Federal Transit Laws. Part 93, subpart A of this chapter was revised by the U.S. EPA in the August 15, 1997 Federal Register.

The Plan establishes the MVEB only for primary emissions of VOC and NOx from motor vehicles. This section discusses budgets that have been set for annual average daily emissions in the analysis years 2026, 2029, and 2031. The MVEB presented below uses emission rates from California's motor vehicle emission model, EMFAC2021 (V.1.0.2),<sup>79</sup> with Coachella Valley activity data (VMT and speed distributions) from SCAG. The activity data are from the region's 2020 Regional Transportation Plan (RTP).<sup>80</sup> Thus, the MVEB is consistent with the emission inventory and attainment demonstration for the SIP.

On November 15, 2022, U.S. EPA approved EMFAC2021 for use in SIPs and for demonstrating transportation conformity.<sup>81</sup> The EMFAC model estimates emissions from two combustion processes (running and start exhaust) and four evaporative processes (hot soak, running losses, diurnal, and resting losses). Further, the estimated emissions were adjusted for the Heavy-Duty Inspection and Maintenance (HD I/M) Program,<sup>82</sup> the Advanced Clean Fleets (ACF) program,<sup>83</sup> the Advanced Clean Cars II (ACCII) program,<sup>84</sup> the Clean Miles Standard (CMS),<sup>85</sup> and the Clean Trucks Plan.<sup>86</sup>

The MVEB for Coachella Valley Ozone Plan was developed to be consistent with the on-road emissions inventory<sup>87</sup> and maintenance demonstration using the following method:

- 1.) Used the EMFAC2021 model to produce the on-road motor vehicle emissions (average annual day) for the appropriate pollutants (VOC and NOx) using 2020 RTP activity data;
- 2.) Applied the off-model adjustments (HD I/M, ACF, ACCII, CMS, and Clean Trucks Plan) to account for recently adopted regulations; and
- 3.) Rounded the totals for VOC and NOx to the nearest tenth of a ton.

## Motor Vehicle Emissions Budget

The MVEB in Table 6-10 was established according to the methodology outlined above and in consultation with SCAG, the South Coast AQMD, U.S. EPA, Federal Highway Administration, and Federal Transit

<sup>82</sup> CARB Heavy-Duty Engine and Vehicle Omnibus Regulations. https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox

<sup>83</sup> CARB Advanced Clean Fleet. <u>https://ww2.arb.ca.gov/our-work/programs/advanced</u>-clean-fleets

 <sup>&</sup>lt;sup>79</sup> More information on data sources can be found in the EMFAC technical support documentation at: <a href="https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation">https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation</a>
 <sup>80</sup> SCAG, Connect SoCal 2020. <a href="https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020">https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020</a>

<sup>&</sup>lt;sup>81</sup> U.S. EPA, Official Release of EMFAC2021 Motor Vehicle Emission Factor Model for Use in the State of California, 87 Fed. Reg. 68483 (November 15, 2022). <u>https://www.federalregister.gov/documents/2022/11/15/2022-24790/official-release-of-emfac2021-motor-vehicle-emission-factor-model-for-use-in-the-state-of-california#:~:text=Dates%3A,is%20effective%20November%2015%2C%202022</u>

<sup>&</sup>lt;sup>84</sup> CARB Advanced Clean Cars II. <u>https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii</u>

<sup>&</sup>lt;sup>85</sup> CARB Clean Miles Standard. <u>https://ww2.arb.ca.gov/our-work/programs/clean-miles-standard</u>

<sup>&</sup>lt;sup>86</sup> U.S. EPA Clean Trucks Plan. <u>https://www.epa.gov/system/files/documents/2021-08/420f21057.pdf</u>

<sup>&</sup>lt;sup>87</sup> More information about the on-road motor vehicle emission budgets can be found in Chapter 3 of the Plan

Administration. The MVEB is consistent with the emission inventories and line item adjustments in the South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard.<sup>88</sup> These budgets will be effective once U.S. EPA determines they are adequate or approved.

Table 6-10 contains the summary MVEB for the Coachella Valley region. It includes precursor pollutants of VOC and NOx emissions for milestone and attainment years using the EMFAC2021 model and 2020 RTP activity data.

Coachella Valley Totals	20	26	20	29	20	31
(Tons per day)	VOC	NOx	VOC	NOx	VOC	NOx
Vehicular Exhaust	2.35	5.12	2.11	4.80	1.98	4.60
Reductions from HD I/M	-	1.81	-	2.09	-	2.12
Reductions from ACF	-	-	-	-	0.02	0.34
Reductions from ACCII	-	-	-	-	0.06	0.06
Reductions from CMS	-	-	-	-	0.00	0.00
Reductions from Clean Trucks Plan	-	-	-	-	0.00	0.14
Total <sup>a</sup>	2.35	3.30	2.11	2.71	1.90	1.94
Motor Vehicle Emission Budget <sup>b</sup>	2.4	3.4	2.2	2.8	2.0	2.0

#### TABLE 6-10 SUMMARY MVEB FOR THE COACHELLA VALLEY (SUMMER SEASON)

<sup>a</sup> Values from EMFAC2021 v1.02 may not add up due to rounding.

<sup>b</sup> Motor Vehicle Emission Budgets calculated are rounded up to the nearest tenth of a tpd.

Source: EMFAC2021 v1.02

<sup>&</sup>lt;sup>88</sup> South Coast AQMD, South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard. <u>https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-(sip)-revisions/2012-annual-pm2-5-plan</u>

## VMT Offset

The CAA requires "extreme" nonattainment areas to submit enforceable transportation control strategies (TCSs) and TCMs to offset any growth in emissions from growth in VMT or numbers of vehicle trips.

## Introduction

The CAA requires states to submit enforceable transportation control strategies (TCSs) and TCMs to offset any growth in VOC emissions due to increases in VMT or the number of vehicle trips from the base year (2011) to the attainment year (2031) of the SIP. Further, the motor vehicle control program should be frozen at base year levels to determine whether additional TCSs and TCMs are necessary to reduce VOC emissions from increased VMT. Accordingly, CARB prepared the VMT emissions-offset demonstrations for the Coachella Valley nonattainment area (Severe-15 classification) for the 2008 8-hour ozone standard as required by Section 182(d)(1)(A). CARB Board approved the VMT emissions-offset demonstrations for Coachella Valley on March 13, 2017, in the 2016 AQMP as a "severe" nonattainment area, and submitted them to U.S. EPA on April 27, 2017. However, the South Coast AQMD voluntarily reclassified the Coachella Valley from a "severe" to an "extreme" nonattainment area for the 75 ppb 8-hour ozone standard. Hence, CARB is updating the VMT emissions-offset demonstrations for the Coachella Valley as an "extreme" nonattainment area in accordance with the U.S. EPA's August 2012 guidance entitled "Implementing Clean Air Act Section 182(d)(1)(A): Transportation Control Measures and Transportation Control Strategies to Offset Growth in Emissions Due to Growth in Vehicle Miles Traveled" ("hereafter referred to as the 2012 guidance").<sup>89</sup>

## U.S. EPA Guidance on VMT Offset Requirement

In its 2012 guidance, U.S. EPA indicated that technological improvements to vehicles, motor vehicle fuels, and other transportation-related control strategies could be used to offset emission increases from VMT. The 2012 guidance also set forth a methodology for demonstrating the achievement of the VMT offset requirement. The projected attainment year emissions, assuming no new control measures and no VMT growth, are to be compared with projected actual attainment year emissions, including new control measures and VMT growth. If the latter emissions are smaller than the former, no additional TCMs or TCSs are required. The 2012 guidance recommends that the base year used in the VMT offset demonstration be the nonattainment area's base year for the 2008 8-hour ozone standard.

## Transportation Control Strategies and Transportation Control Measures

By listing them separately, CAA Section 182(d)(1)(A) differentiates between TCSs and TCMs, both of which can be used as options to offset increased emissions from growth in VMT per the provisions of CAA Section

<sup>&</sup>lt;sup>89</sup> U.S. EPA, Office of Transportation and Air Quality. (2012, August). *Implementing Clean Air Act Section 182(d)(1)(A): Transportation Control Measures and Transportation Control Strategies to Offset Growth in Emissions Due to Growth in Vehicle Miles Traveled* (EPA-420-B-12-053). Retrieved from <u>the EPA website</u>

182(d)(1)(A) and the 2012 guidance. Since 1990, when this requirement was established, California has adopted a substantial number of enforceable TCSs. Table 6-11 provides a list of the State's mobile source TCSs that CARB has adopted between 1990 and the 2011 base year.

#### TABLE 6-11

#### TRANSPORTATION CONTROL STRATEGIES ADOPTED BY THE CALIFORNIA AIR RESOURCES BOARD 1990–2011

Measure	Hearing Date	Category
California Reformulated Gasoline (CalRFG), Phase I. T 13, CCR, 2251.5	9/27/1990	Fuels
California Reformulated Gasoline, Phase II. T 13, CCR, 2250, 2255.1, 2252, 2260 - 2272, 2295	11/21/1991	Fuels
Wintertime Gasoline Program. T 13, CCR, 2258, 2298, 2251.5, 2296	11/21/1991	Fuels
Wintertime Oxygenate Program. T 13, CCR, 2258, 2251.5, 2263(b), 2267, 2298, 2259, 2283, 2293.5	9/9/1993	Fuels
Diesel Fuel Certification Test Methods. T 13, CCR, 1956.8(b), 1960.1(k), 2281(c), 2282(b), (c) and (g)	10/24/1996	Fuels
Diesel Fuel Test Methods. T 13, CCR, 1956.8(b), 1960.1(k), 2281(c), 2282(b), (c) and (g)	10/24/1996	Fuels
1997 Amendments to Onboard Diagnostics, Phase II, Technical Status. T 13, CCR, 1968.1, 2030, 2031	12/12/1996	On-Road
Low Emission Vehicles Standards (LEV 2) and Compliance Assurance Program (CAP 2000). T 13, CCR,1961 & 1962 (both new); 1900, 1960.1, 1965, 1968.1, 1976, 1978, 2037, 2038, 2062, 2101, 2106, 2107, 2110, 2112, 2114, 2119, 2130, 2137-2140, 2143-2148	11/5/1998	On-Road
Exhaust Standards for (On-Road) Motorcycles. T 13, CCR, 1900, 1958, 1965	12/10/1998	On-Road
Light-and Medium Duty Low Emission Vehicle Alignment with Federal Standards. Exhaust Emission Standards for Heavy Duty Gas Engines. T 13, CCR, 1956.8 &1961	12/7/2000	On-Road
Heavy Duty Diesel Engine Standards for 2007 and Later. T 13, CCR, 1956.8 and incorporated test procedures	10/25/2001	On-Road
Low Emission Vehicle Regulations. T 13, CCR, 1960.1,1960.5, 1961, 1962 and incorporate test procedures and guidelines	11/15/2001	On-Road
2003 Amendments to On-Board Diagnostic II Review Amendments. T 13, CCR, 1968.1, 1968.2, 1968.5	4/25/2002	On-Road

Measure	Hearing Date	Category
CaRFG Phase 3 Amendments. T 13, CCR, 2261, 2262, 2262.4, 2262.5, 2262.6, 2262.9, 2266.5, 2269, 2271, 2272, 2265, and 2296	7/25/2002	Fuels
Adoption of Minor Amendments to the Low-Emission Vehicle Regulations. T 13, CCR, 1961, 1965, 1978, and the incorporate test procedures	12/12/2002	On-Road
Incorporation of Federal Exhaust Emission Standards for 2008 and Later Model-Year Heavy Duty Gasoline Engines and the Adoption of Minor Amendments to the Low-Emission Vehicle Regulations. T 13, CCR, 1956.8 and documents incorporated by reference	12/12/2002	On-Road
CaRFG Phase 3 Amendments (specifications for De Minimis Levels of Oxygenates and MTBE Phase Out Issues). T 13, CCR, 2261, 2262.6, 2263, 2266.5, 2272, 2273, 2260, 2273.5	12/12/2002	Fuels
Specifications for Motor Vehicle Diesel Fuel. T 13 & T17, CCR, 1961, 2281, 2282, 2701, 2284, 2285, 93114, and incorporated test procedures	7/24/2003	Fuels
California Reformulated Gasoline, Phase 3. T 13, CCR, 2260, 2262, 2262.4, 2262.5, 2262.6, 2262.9, 2263, 2265 (and the incorporated "California Procedures"), and 2266.5	11/18/2004	Fuels
On-Board Diagnostic System Requirements for 2010 and Subsequent Model-Year Heavy-Duty Engines (HD OBD). T 13, CCR, 1971.1	7/21/2005	On-Road
Requirements to Reduce Idling Emissions from New and In-Use Trucks, Beginning in 2008. T 13, CCR, 1956.8, 2404, 2424, 2425, and 2485 and the incorporated document	10/20/2005	On-Road
Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yard. T 13, CCR, 2479	12/8/2005	On-road and Off-road
Evaporative and Exhaust Emission Test Procedures. T 13, CCR, 1961, 1976, 1978	6/22/2006	On-road
Heavy-Duty In-Use Compliance Regulation. T 13, CCR, 1956.1, 1956.8, and documents incorporated by reference	9/28/2006	On-Road
2007 Amendments to On-Board Diagnostic II. T 13, CCR, 1968.2, 1968.5, 2035, 2037 and 2038	9/28/2006	On-Road
Phase 3 Reformulated Gasoline (Ethanol Permeation) T 13, CCR, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2270, 2271, and 2273	6/14/2007	Fuels
2007 Amendments to Heavy-Duty In-Use Compliance Regulation. T 13, CCR, 1956.1, 1956.8, and documents incorporated by reference	12/6/2007	On-Road
Port Truck Modernization T 13, CCR, 2027	12/6/2007	On-Road

Measure	Hearing Date	Category
Cleaner In-Use Heavy-Duty Trucks (Truck and Bus Reg) T 13, CCR, 2025	12/11/2008	On-Road
2010 Amendments to On-Board Diagnostic II. T 13, CCR, 1968.2, 1968.5, 2035, 2037 and 2038	5/28/2009	On-Road
Plug-In Hybrid Electric Vehicle Test Procedure Amendments. T 13, CCR, 2032, 1900, 1962, 1962.1	5/28/2009	On-Road
2010 Amendments to On-Board Diagnostic System Requirements for Heavy-Duty Engines (HD OBD). T 13, CCR, 1971.1 and 1971.5	5/28/2009	On-Road
Truck and Bus Regulation 2010. T13, CCR, 2025	12/16/2010	On-Road
2011 Amendments to Heavy-Duty In-Use Compliance Regulation. T 13, CCR, 1956.1, 1956.8, and documents incorporated by reference	6/23/2011	On-Road
Amendments to Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yard. T 13, CCR, 2479	9/22/2011	On-Road

In contrast, TCMs are generally adopted as part of a regional transportation plan (RTP). Under federal law, SCAG is designated as a metropolitan planning organization (MPO) and under State law as a regional transportation planning agency and a council of governments. The SCAG region encompasses several ozone nonattainment areas, including the Coachella Valley. On September 3, 2020, SCAG adopted its RTP, also known as Connect SoCal. However, the RTP does not include specific TCMs for the Coachella Valley because upwind emissions from the South Coast Air Basin largely influence ozone air quality in Coachella Valley.<sup>90</sup> Thus, emission controls in the Basin are sufficient to reduce ozone levels in the Coachella Valley region.

## Methodology

The following calculations are based on the 2012 guidance. For the 2008 8-hour ozone standard for the "extreme" area, 2011 and 2031 are the base and attainment years, respectively.

This analysis uses California's motor vehicle emissions model, EMission FACtor (EMFAC).<sup>91</sup> On November 15, 2022, U.S. EPA approved EMFAC2021 for use in SIPs and to demonstrate transportation conformity.<sup>92</sup>

https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-documentation

<sup>&</sup>lt;sup>90</sup> South Coast AQMD, Final Coachella Valley Extreme Area Plan for 1997 8-Hour Ozone Standard, December 2020. <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/2-final-coachella-valley-extreme-area-plan-for-1997-8-hour-ozone-standard.pdf?sfvrsn=6 <sup>91</sup> More information on data sources can be found in the EMFAC technical support documentation at:</u>

<sup>&</sup>lt;sup>92</sup> U.S. EPA, Official Release of EMFAC2021 Motor Vehicle Emission Factor Model for Use in the State of California, 87 Fed. Reg. 68483 (November 15, 2022). https://www.federalregister.gov/documents/2022/11/15/2022-

The EMFAC model estimates the emissions from two combustion processes – running exhaust and start exhaust, and four evaporative processes – hot soak, running losses, diurnal, and resting losses. Emissions from running exhaust, start exhaust, hot soak, and running losses are a function of how much a vehicle is driven. Therefore, emissions from these processes are directly related to VMT and vehicle starts. These processes are included in the calculation of the emissions levels used in the VMT offset demonstration. Emissions from resting loss and diurnal loss processes are not related to VMT, trips, or vehicle starts and are not included in the analysis because these emissions occur whether or not the vehicle travel occurs on a given day.

To calculate on-road emission inventories in the Coachella Valley ozone nonattainment area, EMFAC combines VMT and speed distributions from Connect SoCal. The number of vehicle starts per day is based on household travel surveys, and vehicle population data are from the California Department of Motor Vehicles with corresponding emission rates to calculate emissions.

## Analysis of Coachella Valley

#### Step 1. Calculate the emissions levels for the 2011 base year.

Calculate emission levels for calendar year 2011 using the EMFAC2021 model. Table 6-12 shows the Coachella Valley VOC emissions for the calendar year 2011 from the EMFAC2021 model.

Description	VMT (miles/day)	VOC (tons/day)
2011 Vehicle-Miles Traveled and On-Road Emissions	9,806,099	4.2

# TABLE 6-12COACHELLA VALLEY BASE YEAR (2011) VMT AND EMISSIONS

#### Step 2. Calculate three emission levels in the 2031 attainment year.

- (1) Calculate emissions levels with the motor vehicle control program frozen at 2011 levels and with projected VMT in the attainment year. This represents what the emissions in the attainment year would have been if TCSs and TCMs had not been implemented after 2011.
- (2) Calculate emissions levels with the motor vehicle control program frozen at 2011 levels and assuming VMT does not increase from 2011 levels.

<sup>24790/</sup>official-release-of-emfac2021-motor-vehicle-emission-factor-model-for-use-in-the-state-ofcalifornia#:~:text=Dates%3A,is%20effective%20November%2015%2C%202022

Calculate an emissions level that represents emissions with full implementation of all TCSs and TCMs since 2011.

# Calculation 1. Calculate the emissions in the attainment year assuming growth in VMT and no new control measures since the base year.

To perform this calculation, CARB staff identified the on-road motor vehicle control programs adopted since 2011 and adjusted the EMFAC2021 output to reflect the VOC emission levels in 2031 without the benefits of the post-2011 control programs using VMT in 2031 (14,137,977 miles). As a result, the projected VOC emissions will be 1.5 tons per day in 2031.

#### Calculation 2. Calculate the emissions with no growth in VMT.

EMFAC2021 allows the user to input different VMT values. CARB ran EMFAC2021 for the calendar year 2031 with the 2011 VMT level of 9,806,099 miles per day without the benefits of the post-2011 control programs. The VOC emissions associated with the 2011 VMT level will be 1.1 tons per day in 2031.

#### Calculation 3. Calculate emissions reductions with full implementation of TCSs and TCMs.

CARB calculated the VOC emission levels for 2031, assuming the benefits of the post-2011 motor vehicle control program and the projected VMT levels in 2031 are calculated using EMFAC2021. The projected VOC emissions levels will be 1.1 tons per day in 2031.

VOC emissions for the three sets of calculations described above are provided in Table 6-13.

Calculation Number	Description	VMT Base Year	Vehicle Control Program year	VMT (miles/day)	VOC (tons/day)
1	Emissions with motor vehicle control program frozen at 2011 levels (VMT at 2031 projected levels)	2031	2011	14,137,977	1.5
2	Emissions with motor vehicle control program frozen at 2011 levels (VMT at 2011 levels)	2011	2011	9,806,099	1.1
3	Emissions with a full motor vehicle control program in place (VMT at 2031 projected levels)	2031	2031	14,137,977	1.1

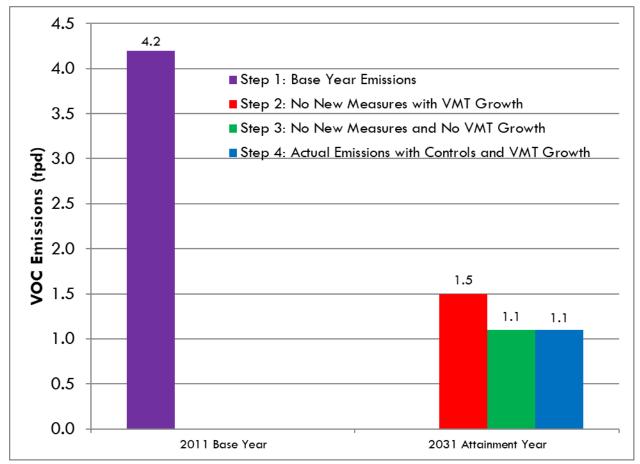
#### TABLE 6-13

#### COACHELLA VALLEY VOC EMISSIONS CALCULATIONS FOR ATTAINMENT YEAR (2031)

As provided in the 2012 guidance, to determine compliance with CAA Section 182(d)(1)(A), Calculation 3 emissions levels should be less than or equal to the Calculation 2 emissions levels:

Since the estimated attainment year emissions are approximately equal to the VMT Offset ceiling (calculation 2), additional TCMs and TCSs will not be needed.

To further illustrate the demonstration, Figure 6-1 graphically displays the emissions benefits of the motor vehicle control programs in offsetting VOC emissions resulting from VMT increases in Coachella Valley for the 75 ppb 8-hour ozone standard with an extreme classification. The left-most bar (in purple) shows the emissions in the base year, 2011, for the 75 ppb 8-hour standard. The three bars on the right show the emission levels in the attainment year 2031. The bars on the right represent the emissions if there were no further motor vehicle controls after the base year and with projected VMT increases (red bar), the emissions if VMT does not increase from base year levels and there are no TCSs or TCMs after the base year (green bar), and the emission levels with all the existing motor vehicle control programs in place with projected VMT increases (blue bar).



\* Does not include resting or diurnal loss emissions.

### FIGURE 6-1 COACHELLA VALLEY VMT OFFSET DEMONSTRATION\*

## Conclusion

The previous sections provide an analysis to demonstrate compliance with CAA Section 182(d)(1)(A). Based on the 2012 guidance, since emissions with updated control measures and VMT are less than or equal to emissions with no new measures and no VMT growth, no additional TCSs and TCMs will be needed to offset the growth in emissions.

## Clean Fuels Fleet Program and Enhanced Vehicle I/M Program

## **Clean Fuels for Fleets Program**

Sections 182(c)(4) of the CAA require ozone nonattainment areas classified as Serious or above with a 1980 population of 250,000 or more to submit revisions to the SIP to implement a clean-fuel vehicle program for fleets. The Clean-Fuel Vehicle Program requires at least a specified percentage of all new covered fleet vehicles purchased by fleet operators to be clean-fuel vehicles and that they use clean alternative fuels when operating in the nonattainment area. Alternately, the state, and the nonattainment areas within the state that need to meet the Clean-Fuel Vehicle Program requirement, can opt out of the program by submitting a revision into the SIP for a program that will achieve long-term reductions in ozone-producing and toxic air emissions equal to those achievable by the U.S. EPA Program.

CARB's Low-Emission Vehicle (LEV) programs are implemented Statewide and far exceed the level of reduction that would be achieved through implementation of the U.S. EPA Program. As such, California ozone nonattainment areas classified as Serious and above have provided certification to this effect and opted out of the U.S. EPA Program since the first California SIP, the 1994 California State Implementation Plan, was submitted to U.S. EPA on November 15, 1994, and approved on September 27, 1999.<sup>93</sup> California has continued to strengthen the requirements for light-duty passenger cars. The second-generation LEV II regulations were adopted in 1998 and the third-generation LEV III regulations in 2012 as part of the Advanced Clean Cars rulemaking package that also includes the State's ZEV regulation. The LEV III regulations include increasingly stringent emission standards for criteria pollutants and greenhouse gases for new passenger vehicles through the 2025 model year. CARB adopted Advanced Clean Cars II in 2022 that further strengthened the criteria pollutant and zero emission vehicles standards for model years 2026 and beyond.

For the 75 ppb 8-hour ozone standard in the Coachella Valley, the clean fuels for fleets requirement of the CAA was addressed and certified in the 2016 Air Quality Management Plan (AQMP).<sup>94</sup> In 2020, U.S. EPA approved the Coachella Valley 75 ppb ozone SIP including that Coachella Valley met the clean fuels for fleets requirement<sup>95</sup> as specified in the Act.

To further demonstrate that the Coachella Valley and areas across California comply with requirements of the Act, California has documented that the Clean Fuels for Fleet requirement has also been met for the more stringent 70 ppb 8-hour ozone standard. In 2022, CARB adopted and submitted the California Clean

<sup>&</sup>lt;sup>93</sup> U.S. EPA, Approval and Promulgation of State Implementation Plans; California, 66 Fed. Reg. 46849 (August 27, 1999). <u>99-22187.pdf (govinfo.gov)</u>

<sup>&</sup>lt;sup>94</sup> South Coast AQMD, 2016 Air Quality Management Plan. <u>final2016aqmp.pdf (aqmd.gov)</u>

<sup>&</sup>lt;sup>95</sup> U.S. EPA, Approval of Air Quality Implementation Plans; California; Coachella Valley; 2008 8-Hour Ozone Nonattainment Area Requirements, 85 Fed. Reg. 57714 (September 16, 2020). <u>2020-19162.pdf (govinfo.gov)</u>

Fuels for Fleets Certification for the 70 ppb Ozone Standard.<sup>96</sup> This action re-certified that California's LEV program qualifies as a substitute for the U.S. EPA Program and satisfies Section 182(c)(4) of the CAA for the 70 ppb ozone standard for nonattainment areas in California, including Coachella Valley. On May 25, 2023, U.S. EPA approved the Coachella Valley 70 ppb 8-hour ozone clean fuels for fleets requirement.<sup>97</sup>

## Vehicle Inspection and Maintenance Program

Sections 182(a)(2)(B), 182(b)(4), and 182(c)(3) of the CAA require ozone nonattainment areas to have in place a vehicle inspection and maintenance (I/M) program to implement Basic and Enhanced I/M in applicable areas that is at least as stringent as the federal program. In California, the Bureau of Automotive Repair (BAR) develops and implements the I/M program. California's I/M program was first submitted and approved by U.S. EPA for inclusion in the California SIP in 1997, and subsequent revisions were approved in 2007 and 2010.

For the 75 ppb 8-hour ozone standard in the Coachella Valley, the I/M program requirement of the Act, was addressed and submitted to U.S. EPA as part of the 2016 AQMP. In 2020, U.S. EPA approved the Coachella Valley 75 ppb ozone SIP including the I/M demonstration in the 2016 AQMP as meeting the CAA requirements for the 75 ppb ozone standard.

To further demonstrate that the Coachella Valley and areas across California comply with requirements of the Act, California has documented that the I/M requirement has also been met for the more stringent 70 ppb ozone standard. In 2023, CARB adopted the California Smog Check Performance Standard Modeling and Program Certification for the 70 Parts Per Billion (ppb) 8-Hour Ozone Standard.<sup>98</sup> This analysis demonstrated that California's Smog Check Program meets the federal I/M program requirements for all applicable nonattainment areas, including Coachella Valley.

## Major Stationary Source Definition

Coachella Valley is already classified as "extreme" nonattainment for the 1997 ozone standard. As such, South Coast AQMD's Regulations XIII – New Source Review, XX – Regional Clean Air Incentives Market, and XXX - Title V have already been amended to reflect the lower major stationary source threshold for

<sup>&</sup>lt;sup>96</sup> CARB, California Clean Fuels for Fleets Certification for the 70 ppb Ozone Standard, December 2021. <u>https://ww2.arb.ca.gov/sites/default/files/2021-12/70ppb-clean-fuels-fleet-certification.pdf</u>

 <sup>&</sup>lt;sup>97</sup> U.S. EPA, Clean Air Plans; 2015 8-Hour Ozone Nonattainment Area Requirements; Clean Fuels for Fleets; California, 88 Fed. Reg. 33830 (May 25, 2023). <u>2023-11006.pdf (govinfo.gov)</u>

<sup>&</sup>lt;sup>98</sup> CARB, California Smog Check Performance Standard Modeling and Program Certification for the 70 Parts Per Billion (ppb) 8-Hour Ozone Standard, February 2023. <u>https://ww2.arb.ca.gov/sites/default/files/2023-</u> 02/california smog check psm and certification staff report 2-10-2023.pdf

"extreme" areas of 10 tons per year or higher of VOC or NOx.<sup>99</sup> U.S. EPA approved the amendments to South Coast AQMD's Title V permit program.<sup>100</sup>

## Offset Requirement

CAA Section 182(e)(1) requires a modified offset ratio of 1.5 to 1 of total emission reductions of VOCs to total increased VOC emissions of each air pollutant (due to permit modifications), unless federal best available control technology (BACT) is required for all new or modified existing major sources. The Federal NSR requirements are reflected in South Coast AQMD Regulation XIII – New Source Review. South Coast AQMD's regulations implement best available control technology (BACT) which is the equivalent of federal Lowest Achievable Emission Reduction (LAER) for major and non-major sources, and therefore an offset ratio of 1.2 to 1 is used for NSR offset requirements for all nonattainment criteria air contaminants identified in Rule 1303. Therefore, South Coast AQMD's existing NSR rules already satisfy offset requirements for VOC and NOx sources.

## Modifications at Major Stationary Sources

CAA Section 182(e)(2) requires any increase of emissions at a major stationary source to be considered as a modification and subject to NSR requirements. South Coast AQMD Regulation XIII requires any new or modified source that results in an emissions increase of any nonattainment air contaminant to be subject to NSR. Therefore, the modification requirement is already addressed in existing NSR rules. The definitions of "major polluting facility" and "major modification threshold" have already been revised to be consistent with requirements for "extreme" ozone nonattainment areas and federal NSR requirements.

# Use of Clean Fuels or Advanced Control Technology for Boilers

CAA Section 182(e)(3) requires each new, modified, and existing electric utility and industrial and commercial boiler that emits more than 25 tpy of NOx to burn a low polluting fuel or use advanced NOx control technology. Existing boilers are already subject to South Coast AQMD Rule 1146 (Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters) and Rule 1135 (Emissions of Oxides of Nitrogen from Electricity Generating Facilities), which reflects BARCT for existing equipment. Any new or modified sources with emission increases of 1 pound

<sup>&</sup>lt;sup>99</sup> South Coast AQMD, Determine That Amendments to Regulation XIII – New Source Review, Regulation XX – Regional Clean Air Incentives Market and Regulation XXX – Title V Permits, Are Exempt from CEQA and Amend Regulations XIII, XX and XXX, December 2020. <u>https://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2020/2020-Dec4-032.pdf?sfvrsn=6</u>

<sup>&</sup>lt;sup>100</sup> U.S. EPA, Clean Air Act Operating Permit Program; California; South Coast Air Quality Management District, 89 Fed. Reg. 58628 (July 19, 2024). <u>https://www.federalregister.gov/documents/2024/07/19/2024-15106/clean-air-act-operating-permit-program-california-south-coast-air-quality-management-district</u>

per day or more of VOC or NOx are also subject to BACT requirements. As such, the implementation of existing BARCT and BACT already require new, modified, and existing electric utility and industrial and commercial boilers to use advanced NOx control technology, and therefore, no additional action is proposed in this Plan.

## **Emissions Statements**

U.S. EPA approved the Coachella Valley's emissions statement program under the "severe" classification for the 2008 8-hour ozone standard.<sup>101</sup> South Coast AQMD continues to implement Rule 301, upon which the emissions statement program is based, that requires emission reporting from all sources emitting 4 tons per year or more of VOC/NOx and paying a fee. Rule 301 exceeds the requirements of CAA Section 182(a)(3)(B), which exempts sources emitting less than 25 tons per year of VOC or NOx. South Coast AQMD therefore concludes that the emissions statement requirement has been fulfilled.

## Nonattainment Fees

Should Coachella Valley fail to attain the 2008 8-hour ozone standard by July 20, 2032, CAA Section 185 requires the collection of annual fees from major stationary sources until the area is redesignated as attainment. On June 7, 2024, South Coast AQMD adopted Rule 317.1 to establish a regulatory pathway necessary to comply with the requirements of CAA Section 185 for the 1997 and 2008 8-hour ozone standards.<sup>102</sup> Rule 317.1 requires the collection of fees for NOx and VOC emissions that exceed 80 percent of a major stationary source's baseline emissions during each calendar year beginning after the attainment date until the area is redesignated as attainment.

## **New Technologies**

CAA Section 182(e)(5) allows for "extreme" nonattainment area attainment demonstrations to be based on the anticipated development of new technologies or improvement of existing control technologies. These long-term control measures are often referred to as "black box" measures and go beyond the shortterm control measures that are based on known and demonstrated technologies. For "extreme" nonattainment areas, the "black box" measures may be used as part of the attainment strategy. As presented in Chapters 4 and 5 of this Plan, existing rules and regulations provide the needed reductions for attainment in 2031, and "black box" measures were not used to demonstrate attainment.

<sup>&</sup>lt;sup>101</sup> U.S. EPA, Approval of Air Quality Implementation Plans; California; Coachella Valley; 2008 8-Hour Ozone Nonattainment Area Requirements, 85 Fed. Reg. 57714 (September 16, 2020). <u>https://www.federalregister.gov/documents/2020/09/16/2020-19162/approval-of-air-quality-implementation-plans-california-coachella-valley-2008-8-hour-ozone</u>

<sup>&</sup>lt;sup>102</sup> South Coast AQMD Rule 317.1, adopted June 7, 2024. <u>https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/rule-317-1.pdf?sfvrsn=16</u>

## **NOx Requirements**

Pursuant to CAA Section 182(f), all provisions required for major stationary sources of VOC shall also apply to major stationary sources of NOx as defined in 182(e)(1), including the offset ratio. The "extreme" nonattainment area offset ratio for NOx mirrors that of VOCs in Rule 1303 and South Coast AQMD's existing NSR rules satisfy all applicable requirements for NOx.

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 7 – PUBLIC PROCESS** 

## **Public Process**

The Coachella Valley Ozone Plan will be developed through a public process. The Draft Plan was released on July 31, 2024 for public review. South Coast AQMD staff will-heold a Public Consultation Meeting (PCM) on August 14, 2024 to solicit information, comments, and suggestions from the public, affected businesses and stakeholders. Meeting materials for the PCM wereill be translated to Spanish and live Spanish translation wasill be-available. In addition, the Plan wilasl be presented to South Coast AQMD's Mobile Source Committee on August 16, 2024 and the AB 617 Eastern Coachella Valley Community Steering Committee on September 5, 2024. A public hearing is scheduled at the South Coast AQMD Governing Board Meeting on October 4, 2024 (subject to change). Following approval by the South Coast AQMD Governing Board, the Plan will be submitted to the U.S. EPA via CARB for inclusion into the SIP.

## Written Comment and Response to Comment

South Coast AQMD staff received one comment letter on the Draft Coachella Valley Ozone Plan.

## Comment Letter #1

From: Laura Rosenberger Haider <lauagreen.rosenberger@gmail.com> Sent: Friday, August 30, 2024 11:54 PM To: AQMPTeam AQMPteam@aqmd.gov Subject: [EXTERNAL] Comment on Draft Coachella Valley Ozone Plan

Please implement your proposed control measures and enforce all previous rules. Control emissions from refineries and non-refinery flares, because in 2022, 551 new oil wells were permitted to be drilled in Los Angeles. There is a high rate of leakage of VOCs. Air from Los Angeles blows into Coachella Valley. The gas peaker plants need to be shut down. Mixing hydrogen with nitrogen would increase NOx emissions. Also, at night, air blows from the geothermal projects near Salton Sea carrying VOCs because they don't have the BACT. There is some oil stimulation in Coachella Valley. I will see if there is any evidence of VOC of methane leakage. You forget to restrict NOx from agriculture, since there is a lot of agriculture in Coachella Valley. You should restrict the use of Nitrous oxide fumigant on crops and foods. Grapes are sprayed with a lot of fumigants. Fumigant Pesticides produce an 8 times increase in Nitrous Oxide. They influence soil mircobes and their ability to sequester nitrogen. **Source:** 2023 Pesticides in the Pantry -- a report published by the As You Sow Organization: The full-

**Source:** 2023 Pesticides in the Pantry -- a report published by the As You Sow Organization: The fullreport is here: https://www.asyousow.org/report-page/2023-pesticides-pantry

Response to Comment 1-1: South Coast AQMD has several rules that control emissions from flares, oil and gas production wells, and power plants. For example, Rules 1118 and 1118.1 control emissions from refinery flares and non-refinery flares, respectively, while the Rule 1148 series regulates emissions of VOC and other toxic air contaminants from the operation and maintenance of oil and gas production wells in the South Coast AQMD jurisdiction. In particular, Rule 1148.1, amended on August 2, 2024, enhances VOC

<u>1-1</u>

<u>leak detection requirements. Additional rules including Rules 463, 1176, and 1173 may also be applicable</u> to oil and gas production sources. Peaker power plants, which typically employ gas turbines, generate electricity during periods of high demand and are subject to stringent emission limits in Rules 1134 and 1135. In addition, any new or modified fossil-fueled power plant is required to incorporate BACT.

South Coast AQMD lacks the authority to regulate pesticides as California Health and Safety Code Section 39655(a) provides that regulation of pesticides is reserved for the California Department of Pesticide Regulation (DPR). DPR develops pesticide regulations in consultation with various agencies, including CARB. This collaboration helps ensure that pesticide regulations consider air quality impacts and other environmental factors. In addition, South Coast AQMD has designated the Eastern Coachella Valley (ECV) as an AB 617 community and is committed to working in partnership with the Community Steering Committee as well as local, state, and federal agencies to reduce pesticide emissions and exposure. For additional details on pesticide concerns in ECV, please refer to the Community Emissions Reduction Plan for ECV.<sup>103</sup>

<u>Staff is aware of the geothermal and lithium extraction projects in the Salton Sea region. However, these projects are located in the Imperial County Air Pollution Control District jurisdiction and fall outside of the South Coast AQMD's jurisdiction.</u>

<sup>103</sup> South Coast AQMD, Eastern Coachella Valley Community Emissions Reduction Plan Final, July 2021. https://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/eastern-coachella-valley/finalcerp/final-cerp-july-2021.pdf?sfvrsn=9

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 8 – CALIFORNIA ENVIRONMENTAL QUALITY ACT** 

## California Environmental Quality Act (CEQA)

Pursuant to CEQA Guidelines Sections 15002(k) and 15061, the proposed project (Coachella Valley Ozone Plan) is exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3) and 15308. Further, there is no substantial evidence indicating that any of the exceptions in CEQA Guidelines Section 15300.2 apply to the proposed project. A Notice of Exemption <u>has been will be</u>-prepared pursuant to CEQA Guidelines Section 15062. If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties, and with the State Clearinghouse of the Governor's Office of Planning and Research.

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**CHAPTER 9 – STAFF RECOMMENDATION** 

## Staff Recommendation

Staff recommends adoption of the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard and subsequent submission to U.S. EPA via CARB. The Coachella Valley Ozone Plan must be submitted for incorporation into the SIP by October 7, 2024 to comply with the deadline established by U.S. EPA.<sup>104</sup>

<sup>&</sup>lt;sup>104</sup> U.S. EPA, Designation of Areas for Air Quality Planning Purposes; California; Coachella Valley Ozone Nonattainment Area; Reclassification to Extreme, 88 Fed. Reg. 14291 (March 8, 2023). <u>https://www.federalregister.gov/documents/2023/03/08/2023-04736/designation-of-areas-for-air-quality-planning-purposes-california-coachella-valley-ozone</u>

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

APPENDIX I: SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY THE SOUTH COAST AIR BASIN AND THE COACHELLA VALLEY

#### TABLE I-1

bustion lectric Utilities cogeneration Manufacturing and Industrial ood and Agricultural Processing ervice and Commercial Other (Fuel Combustion) otal Fuel Combustion sposal ewage Treatment andfills ncineration oil Remediation Other (Waste Disposal) otal Waste Disposal and Surface Coatings aundering	0.09 0.00 0.07 0.09 0.01 <b>0.26</b> 0.02 0.00 0.00 0.00 0.00 0.00 0.00	0.02 0.00 0.02 0.00 0.05 0.01 0.09 0.01 0.00 0.00 0.00 0.00 0.00	0.54 0.00 0.10 0.23 0.09 0.97 0.97 0.00 0.00 0.00 0.01 0.00 0.00	0.13 0.00 0.90 0.01 0.56 0.02 <b>1.63</b> 0.00 0.00 0.00 0.00 0.00	0.17 0.00 0.00 0.01 0.00 0.18 0.00 0.00	0.02 0.00 0.02 0.00 0.03 0.00 0.06	0.02 0.00 0.02 0.00 0.03 0.00 0.06 0.00	0.02 0.00 0.02 0.00 0.03 0.00 0.06 0.00 0.00	0.02 0.00 0.00 0.01 0.00 0.05 0.00
lectric Utilities cogeneration Anufacturing and Industrial ood and Agricultural Processing ervice and Commercial other (Fuel Combustion) <b>total Fuel Combustion</b> sposal ewage Treatment andfills ncineration oil Remediation other (Waste Disposal) <b>total Waste Disposal</b> and Surface Coatings	0.00 0.07 0.09 0.01 0.26 0.02 0.00 0.00 0.00 0.00 0.00	0.00 0.02 0.00 0.05 0.01 0.09 0.01 0.00 0.00 0.00 0.00	0.00 0.10 0.23 0.09 0.97 0.97 0.00 0.00 0.00 0.01 0.00	0.00 0.90 0.01 0.56 0.02 <b>1.63</b> 0.00 0.00 0.00	0.00 0.00 0.01 0.00 0.18 0.00 0.00	0.00 0.02 0.00 0.03 0.00 0.06	0.00 0.02 0.00 0.03 0.00 0.06	0.00 0.02 0.00 0.03 0.00 0.06 0.06	0.00 0.00 0.01 0.00 0.05 0.05
Image: Source of the system         Image: Source of the system <td>0.00 0.07 0.09 0.01 0.26 0.02 0.00 0.00 0.00 0.00 0.00</td> <td>0.00 0.02 0.00 0.05 0.01 0.09 0.01 0.00 0.00 0.00 0.00</td> <td>0.00 0.10 0.23 0.09 0.97 0.97 0.00 0.00 0.00 0.01 0.00</td> <td>0.00 0.90 0.01 0.56 0.02 <b>1.63</b> 0.00 0.00 0.00</td> <td>0.00 0.00 0.01 0.00 0.18 0.00 0.00</td> <td>0.00 0.02 0.00 0.03 0.00 0.06</td> <td>0.00 0.02 0.00 0.03 0.00 0.06</td> <td>0.00 0.02 0.00 0.03 0.00 0.06 0.06</td> <td>0.00 0.00 0.01 0.00 0.05 0.05</td>	0.00 0.07 0.09 0.01 0.26 0.02 0.00 0.00 0.00 0.00 0.00	0.00 0.02 0.00 0.05 0.01 0.09 0.01 0.00 0.00 0.00 0.00	0.00 0.10 0.23 0.09 0.97 0.97 0.00 0.00 0.00 0.01 0.00	0.00 0.90 0.01 0.56 0.02 <b>1.63</b> 0.00 0.00 0.00	0.00 0.00 0.01 0.00 0.18 0.00 0.00	0.00 0.02 0.00 0.03 0.00 0.06	0.00 0.02 0.00 0.03 0.00 0.06	0.00 0.02 0.00 0.03 0.00 0.06 0.06	0.00 0.00 0.01 0.00 0.05 0.05
Manufacturing and Industrial         ood and Agricultural Processing         ervice and Commercial         Other (Fuel Combustion)         rotal Fuel Combustion         sposal         ewage Treatment         andfills         ncineration         oil Remediation         Other (Waste Disposal)         iotal Waste Disposal         and Surface Coatings	0.07 0.00 0.09 0.01 0.26 0.02 0.00 0.00 0.00 0.00 0.00	0.02 0.00 0.05 0.01 0.09 0.01 0.00 0.00 0.00 0.00	0.10 0.00 0.23 0.09 <b>0.97</b> 0.00 0.00 0.00 0.01 0.00	0.90 0.01 0.56 0.02 <b>1.63</b> 0.00 0.00 0.00	0.00 0.01 0.00 <b>0.18</b> 0.00 0.00	0.02 0.00 0.03 0.00 0.06	0.02 0.00 0.03 0.00 0.06 0.00	0.02 0.00 0.03 0.00 0.06 0.06	0.00 0.00 0.01 0.00 0.05
ood and Agricultural Processing ervice and Commercial Other (Fuel Combustion) fotal Fuel Combustion sposal ewage Treatment andfills ncineration oil Remediation Other (Waste Disposal) fotal Waste Disposal and Surface Coatings	0.00 0.09 0.01 0.26 0.02 0.00 0.00 0.00 0.00	0.00 0.05 0.01 0.09 0.01 0.01 0.00 0.00 0.00 0.00	0.00 0.23 0.09 0.97 0.00 0.00 0.00 0.01 0.00	0.01 0.56 0.02 1.63 0.00 0.00 0.00	0.00 0.01 0.00 0.18 0.00 0.00	0.00 0.03 0.00 0.06 0.00	0.00 0.03 0.00 0.06 0.00	0.00 0.03 0.00 0.06 0.00	0.00 0.01 0.05 0.05
ervice and Commercial Other (Fuel Combustion) otal Fuel Combustion sposal ewage Treatment andfills ncineration oil Remediation Other (Waste Disposal) otal Waste Disposal and Surface Coatings	0.09 0.01 0.26 0.02 0.00 0.00 0.00 0.00	0.05 0.01 0.09 0.01 0.00 0.00 0.00 0.00	0.23 0.09 0.97 0.00 0.00 0.00 0.01 0.00	0.56 0.02 1.63 0.00 0.00 0.00	0.01 0.00 0.18 0.00 0.00	0.03 0.00 0.06 0.00	0.03 0.00 0.06 0.00	0.03 0.00 <b>0.06</b> 0.00	0.01 0.00 0.05 0.00
other (Fuel Combustion) iotal Fuel Combustion sposal ewage Treatment andfills ncineration oil Remediation Other (Waste Disposal) iotal Waste Disposal and Surface Coatings	0.01 0.26 0.02 0.00 0.00 0.00 0.00	0.01 0.09 0.01 0.00 0.00 0.00 0.00	0.09 0.97 0.00 0.00 0.00 0.01 0.00	0.02 1.63 0.00 0.00 0.00	0.00 0.18 0.00 0.00	0.00 <b>0.06</b> 0.00	0.00 0.06 0.00	0.00 0.06 0.00	0.00 0.05 0.00
otal Fuel Combustion         sposal         ewage Treatment         andfills         ncineration         oil Remediation         Other (Waste Disposal)         otal Waste Disposal         and Surface Coatings	0.26 0.02 0.00 0.00 0.00 0.00	0.09 0.01 0.00 0.00 0.00 0.00	0.97 0.00 0.00 0.01 0.00	1.63 0.00 0.00 0.00	0.18 0.00 0.00	0.06	0.06	0.06	0.05
sposal ewage Treatment andfills ncineration oil Remediation Other (Waste Disposal) otal Waste Disposal and Surface Coatings	0.02 0.00 0.00 0.00 0.00	0.01 0.00 0.00 0.00 0.00	0.00 0.00 0.01 0.00	0.00 0.00 0.00	0.00	0.00	0.00	0.00	0.00
ewage Treatment andfills ncineration oil Remediation Other (Waste Disposal) otal Waste Disposal and Surface Coatings	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.01 0.00	0.00	0.00				
andfills ncineration oil Remediation Other (Waste Disposal) otal Waste Disposal and Surface Coatings	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.01 0.00	0.00	0.00				
ncineration oil Remediation Other (Waste Disposal) otal Waste Disposal and Surface Coatings	0.00 0.00 0.00	0.00 0.00 0.00	0.01 0.00	0.00		0.00	0.00	0.00	0.00
oil Remediation Other (Waste Disposal) Total Waste Disposal and Surface Coatings	0.00 0.00	0.00	0.00		0.00			0.00	0.00
Other (Waste Disposal) otal Waste Disposal and Surface Coatings	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
otal Waste Disposal and Surface Coatings			0.00	0.00	0.00	0.00	0.00	0.00	0.00
and Surface Coatings	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-			0.01	0.00	0.00	0.00	0.00	0.00	0.01
-									
aundering									
	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Degreasing	1.59	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
coatings and Related Processes	1.32	1.28	0.00	0.00	0.00	0.07	0.07	0.07	0.00
rinting	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
									0.00
									0.00
otal Cleaning and Surface Coatings	3.23	1.74	0.00	0.00	0.00	0.07	0.07	0.07	0.00
n Production and Marketing									
, in the second s	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
									0.00
Other (Petroleum Production and	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,	1 34	0 33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aarketing	1.54	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Processes									
hemical	0.12	0.12	0.00	0.00	0.00	0.01	0.01	0.01	0.00
ood and Agriculture	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Aineral Processes	0.03	0.02	0.00	0.00	0.00	0.34	0.11	0.04	0.00
Netal Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vood and Paper	0.00	0.00	0.00	0.00	0.00	0.23	0.16	0.09	0.00
lectronics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other (Industrial Processes)	0.07	0.07	0.00	0.00	0.00	0.03	0.03	0.02	0.00
otal Industrial Processes	0.25	0.24	0.00	0.00	0.00	0.60	0.31	0.17	0.02
•	2.04	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
									0.00
5									0.00
									0.60
isphalt Paving/Rooting	0.07 4.43	0.06 <b>3.63</b>	0.00	0.00	L U.OO	11111			
	dhesives and Sealants ther (Cleaning and Surface Coatings) otal Cleaning and Surface Coatings a Production and Marketing I and Gas Production etroleum Marketing ther (Petroleum Production and arketing) otal Petroleum Production and arketing Processes nemical bod and Agriculture ineral Processes etal Processes etal Processes iood and Paper ectronics ther (Industrial Processes)	Jose and Sealants0.16thesives and Sealants0.02other (Cleaning and Surface Coatings)0.02otal Cleaning and Surface Coatings3.23an Production and Marketing1.341 and Gas Production0.00etroleum Marketing1.34ther (Petroleum Production and arketing)0.00arketing)0.00otal Petroleum Production and arketing1.34Processes0.00ineral Processes0.03ineral Processes0.00ood and Agriculture0.00ineral Processes0.00ood and Paper0.00ectronics0.00other (Industrial Processes)0.07otal Industrial Processes0.25araporation3.84onsumer Products3.84onsumer Products0.22ophalt Paving/Roofing0.07	Absolution0.160.14absolution0.020.02absolution0.020.02absolution0.020.02absolution0.020.02absolution0.020.02absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.120.12absolution0.030.03absolution0.010.00absolution0.010.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.000.00absolution0.010.00absolution0.020.00absolution0.000.00absolution0.000.00absolution0.070.07absolution0.250.24absolution0.300.30absolution0.300.30absolution0.300.30absolution0.300.30absolution0.320.22absolution0.320.22absolution0.320.22absolution0.32	Advance         0.16         0.14         0.00           ther (Cleaning and Surface Coatings)         0.02         0.02         0.00           otal Cleaning and Surface Coatings         3.23         1.74         0.00           otal Cleaning and Surface Coatings         3.23         1.74         0.00           otal Cleaning and Marketing         0.00         0.00         0.00           1 and Gas Production         0.00         0.00         0.00           etroleum Marketing         1.34         0.33         0.00           etroleum Production and arketing)         0.00         0.00         0.00           otal Petroleum Production and arketing         1.34         0.33         0.00           otal Petroleum Production and arketing         0.12         0.12         0.00           otal Petroleum Production and arketing         0.33         0.00         0.00           otal Petroleum Production and arketing         0.12         0.12         0.00           otal Petroleum Production and arketing         0.33         0.00         0.00           otal Petroleum Production and arketing         0.33         0.00         0.00           odd and Agriculture         0.03         0.03         0.00           ineral Processes	Inserves and Sealants         0.16         0.14         0.00         0.00           ther (Cleaning and Surface Coatings)         0.02         0.02         0.00         0.00           otal Cleaning and Surface Coatings         3.23         1.74         0.00         0.00           otal Cleaning and Surface Coatings         3.23         1.74         0.00         0.00           and Gas Production and Marketing         1.34         0.33         0.00         0.00           etroleum Marketing         1.34         0.33         0.00         0.00           etroleum Marketing         1.34         0.33         0.00         0.00           arketing)         0.00         0.00         0.00         0.00         0.00           arketing         1.34         0.33         0.00         0.00         0.00           arketing         0.12         0.12         0.00         0.00         0.00           odd and Agriculture         0.03         0.03         0.00         0.00         0.00           ineral Processes         0.00         0.00         0.00         0.00         0.00         0.00           odd and Agriculture         0.00         0.00         0.00         0.00         0.00	Answer         0.16         0.14         0.00         0.00         0.00           ther (Cleaning and Surface Coatings)         0.02         0.02         0.00         0.00         0.00         0.00           ther (Cleaning and Surface Coatings)         3.23         1.74         0.00         0.00         0.00           the Production and Marketing	besites and Sealants         0.16         0.14         0.00         0.00         0.00         0.00           ther (Cleaning and Surface Coatings)         0.02         0.02         0.00 <t< td=""><td>Stress and Sealants         0.16         0.14         0.00         0.00         0.00         0.00         0.00           ther (Cleaning and Surface Coatings)         0.02         0.02         0.00         <td< td=""><td>thesives and Sealants       0.16       0.14       0.00       <t< td=""></t<></td></td<></td></t<>	Stress and Sealants         0.16         0.14         0.00         0.00         0.00         0.00         0.00           ther (Cleaning and Surface Coatings)         0.02         0.02         0.00 <td< td=""><td>thesives and Sealants       0.16       0.14       0.00       <t< td=""></t<></td></td<>	thesives and Sealants       0.16       0.14       0.00 <t< td=""></t<>

#### (Continued)

MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3
Miscellan	eous Processes									
610	Residential Fuel Combustion	0.21	0.09	0.28	0.53	0.00	0.08	0.08	0.08	0.00
620	Farming Operations	0.86	0.07	0.00	0.00	0.00	0.70	0.32	0.05	0.34
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	34.94	17.10	1.71	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	11.00	5.03	0.75	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	4.80	2.85	0.29	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	2.28	1.18	0.17	0.00
660	Fires	0.01	0.01	0.00	0.08	0.00	0.01	0.01	0.01	0.00
670	Waste Burning and Disposal	0.01	0.01	0.01	0.12	0.00	0.02	0.02	0.01	0.00
690	Cooking	0.06	0.03	0.00	0.00	0.00	0.26	0.26	0.26	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
	RECLAIM	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00
	Total Miscellaneous Processes	1.15	0.21	0.40	0.72	0.00	54.09	26.85	3.33	1.15
On-Road	Motor Vehicles									
710	Light Duty Passenger (LDA)	1.40	1.32	0.66	13.41	0.02	0.09	0.09	0.03	0.18
722	Light Duty Trucks - 1 (LDT1)	0.36	0.34	0.23	3.74	0.00	0.01	0.01	0.00	0.02
723	Light Duty Trucks - 2 (LDT2)	0.64	0.59	0.60	8.11	0.01	0.04	0.04	0.02	0.08
724	Medium Duty Trucks (MDV)	0.67	0.61	0.68	7.90	0.01	0.04	0.04	0.01	0.07
725	Light Heavy Duty Trucks - 1 (LHDT1)	0.09	0.08	0.33	0.44	0.00	0.02	0.02	0.01	0.02
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.02	0.02	0.12	0.10	0.00	0.01	0.01	0.00	0.01
727	Medium Heavy Duty Trucks (MHDT)	0.10	0.09	1.21	0.71	0.00	0.05	0.05	0.04	0.03
728	Heavy Heavy Duty Trucks (HHDT)	0.28	0.23	6.55	1.50	0.02	0.29	0.29	0.19	0.24
750	Motorcycles (MCY)	0.25	0.24	0.02	0.76	0.00	0.00	0.00	0.00	0.00
775	Buses	0.08	0.01	0.12	0.54	0.00	0.01	0.01	0.00	0.02
780	Motor Gomes (MH)	0.02	0.02	0.03	0.05	0.00	0.00	0.00	0.00	0.00
	Total On-Road Motor Vehicles	3.91	3.55	10.54	37.27	0.07	0.57	0.57	0.31	0.66
Other Mc	bile Sources									
810	Aircraft	0.10	0.10	0.33	1.24	0.03	0.03	0.03	0.02	0.00
810	Trains	0.10	0.10	3.77	0.86	0.00	0.00	0.00	0.02	0.00
840	Recreational Boats	0.83	0.10	0.11	1.97	0.00	0.10	0.04	0.03	0.00
850	Off-Road Recreational Vehicles	0.03	0.14	0.00	0.16	0.00	0.00	0.00	0.00	0.00
860	Off-Road Equipment	2.19	2.05	2.57	24.81	0.00	0.00	0.00	0.13	0.00
861	Off-Road Equipment (PERP)	0.05	0.04	0.50	0.27	0.00	0.02	0.02	0.02	0.00
870	Farm Equipment	0.13	0.11	0.47	1.01	0.00	0.03	0.03	0.03	0.00
890	Fuel Storage and Handling	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	3.91	3.65	7.74	30.31	0.04	0.37	0.36	0.32	0.01
Natural S	ources									
910	Biogenic Sources	33.56	32.91	0.69	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
930	Wildfires	3.53	2.92	0.45	41.69	0.28	4.21	4.05	4.05	0.42
	Total Natural Sources Category	37.09	35.83	1.14	41.69	0.28	4.21	4.05	4.05	1.02
Total Stat	tionary and Area Sources	10.69	6.25	1.38	2.36	0.18	54.83	27.28	3.63	1.83
Total On-	Road Vehicles	3.91	3.55	10.54	37.27	0.07	0.57	0.57	0.31	0.66
Total Oth	er Mobile	3.91	3.65	7.74	30.31	0.04	0.37	0.36	0.32	0.01
Total Ant	hropogenic	18.52	13.46	19.66	69.93	0.30	55.78	28.22	4.26	2.49
Total Nat	ural Sources	37.09	35.83	1.14	41.69	0.28	4.21	4.05	4.05	1.02
Grand To	tal	55.61	49.29	20.80	111.63	0.57	59.99	32.26	7.68	3.51

TABLE I-2

MSC	DESC	TOG	VOC	NOX	со	SOX	PM	PM10	PM2.5	NH3
Fuel C	ombustion									
10	Electric Utilities	0.10	0.02	0.60	0.15	0.18	0.02	0.02	0.02	0.03
20	Cogeneration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	Manufacturing and Industrial	0.07	0.02	0.11	0.93	0.00	0.02	0.02	0.02	0.00
52	Food and Agricultural Processing	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
60	Service and Commercial	0.10	0.05	0.23	0.56	0.01	0.03	0.03	0.03	0.01
99	Other (Fuel Combustion)	0.01	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00
	Total Fuel Combustion	0.28	0.09	1.01	1.65	0.20	0.07	0.07	0.06	0.05
14/	D'anna d									
	Disposal	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110	Sewage Treatment	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	Landfills	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	Incineration	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Waste Disposal	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Cleani	ng and Surface Coatings									
210	Laundering	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	1.67	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230	Coatings and Related Processes	1.40	1.35	0.00	0.00	0.00	0.08	0.07	0.07	0.00
240	Printing	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	Adhesives and Sealants	0.16	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
299	Other (Cleaning and Surface Coatings)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200	Total Cleaning and Surface Coatings	3.40	1.84	0.00	0.00	0.00	0.08	0.00	0.07	0.00
		0.10								0.00
Petrol	eum Production and Marketing									
310	Oil and Gas Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330	Petroleum Marketing	1.41	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
399	Other (Petroleum Production and	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Marketing)									
	Total Petroleum Production and	1.41	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Marketing									
Indust	rial Processes									
410	Chemical	0.13	0.13	0.00	0.00	0.00	0.01	0.01	0.01	0.00
420	Food and Agriculture	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02
430	Mineral Processes	0.03	0.03	0.00	0.00	0.00	0.35	0.12	0.04	0.00
440	Metal Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
450	Wood and Paper	0.00	0.00	0.00	0.00	0.00	0.25	0.17	0.10	0.00
470	Electronics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
499	Other (Industrial Processes)	0.07	0.07	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Industrial Processes	0.26	0.25	0.00	0.00	0.00	0.64	0.33	0.19	0.02
Solver	t Evaporation									
510	Consumer Products	4.12	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	0.32	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.59
540	Asphalt Paving/Roofing	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Solvent Evaporation	4.74	3.88	0.00	0.00	0.00	0.00	0.00	0.00	0.59

			(Continu	ed)						
MSC	DESC	TOG	VOC	NOX	со	SOX	РМ	PM10	PM2.5	NH3
Miscell	aneous Processes									
610	Residential Fuel Combustion	0.22	0.10	0.32	0.55	0.00	0.09	0.08	0.08	0.00
620	Farming Operations	0.86	0.07	0.00	0.00	0.00	0.70	0.32	0.05	0.34
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	36.76	17.99	1.80	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	11.27	5.15	0.77	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	4.80	2.85	0.29	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	2.27	1.17	0.17	0.00
660	Fires	0.01	0.01	0.00	0.08	0.00	0.01	0.01	0.01	0.00
670	Waste Burning and Disposal	0.01	0.01	0.01	0.12	0.00	0.02	0.02	0.01	0.00
690	Cooking	0.07	0.03	0.00	0.00	0.00	0.27	0.27	0.27	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84
	RECLAIM	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
	Total Miscellaneous Processes	1.16	0.21	0.66	0.75	0.00	56.18	27.86	3.45	1.18
On Boa	ad Motor Vehicles									
710	Light Duty Passenger (LDA)	1.39	1.33	0.58	11.83	0.02	0.09	0.09	0.03	0.18
722	Light Duty Passenger (LDA) Light Duty Trucks - 1 (LDT1)	0.38	0.36	0.58	3.42	0.02	0.09	0.09	0.03	0.18
723	Light Duty Trucks - 2 (LDT2)	0.58	0.59	0.21	7.19	0.00	0.01	0.01	0.00	0.02
	Medium Duty Trucks (MDV)	0.64	0.59	0.49	7.03	0.01	0.03	0.03	0.02	0.09
724 725	Light Heavy Duty Trucks - 1 (LHDT1)	0.07	0.82	0.58	0.41	0.01	0.04	0.04	0.01	0.07
725	Light Heavy Duty Trucks - 2 (LHDT2)	0.09	0.08	0.27	0.41	0.00	0.02	0.02	0.01	0.02
720	Medium Heavy Duty Trucks (MHDT)	0.02	0.02	0.10	0.09	0.00	0.01	0.01	0.00	0.01
		0.07	0.06		1.29	0.00	0.03	0.03	0.02	0.05
728 750	Heavy Heavy Duty Trucks (HHDT)		0.15	4.88	0.71				0.13	
775	Motorcycles (MCY)	0.28	0.27	0.02	0.71	0.00	0.00	0.00	0.00	0.00
	Buses						0.00			
780	Motor Gomes (MH)	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00 0.24	0.00
	Total On-Road Motor Vehicles	3.81	3.51	8.03	33.06	0.07	0.51	0.50	0.24	0.74
Other N	l Mobile Sources									
810	Aircraft	0.10	0.09	0.36	1.23	0.03	0.03	0.03	0.02	0.00
820	Trains	0.21	0.18	3.88	0.89	0.00	0.10	0.10	0.09	0.00
840	Recreational Boats	0.75	0.71	0.10	1.91	0.00	0.04	0.04	0.03	0.00
850	Off-Road Recreational Vehicles	0.14	0.13	0.00	0.15	0.00	0.00	0.00	0.00	0.00
860	Off-Road Equipment	2.16	2.02	2.24	26.01	0.00	0.15	0.14	0.12	0.00
861	Off-Road Equipment (PERP)	0.04	0.04	0.39	0.27	0.00	0.01	0.01	0.01	0.00
870	Farm Equipment	0.12	0.10	0.41	0.98	0.00	0.03	0.03	0.02	0.00
890	Fuel Storage and Handling	0.24	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	3.76	3.50	7.39	31.45	0.04	0.35	0.34	0.30	0.01
Natura	l Sources									<u> </u>
910	Biogenic Sources	33.56	32.91	0.69	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.60
920	Wildfires	1.86	1.53	0.00	21.92	0.00	2.20	2.12	1.79	0.80
550	Total Natural Sources Category	35.42	34.45	0.23	21.92 21.92	0.14	2.20	2.12	1.79	0.22
		55.42	J <del>1</del> .4J	0.32	21.72	0.14	2.20	2.12	1.79	0.02
	Total Stationary and Area Sources	11.27	6.62	1.68	2.41	0.20	56.96	28.33	3.77	1.85
	Total On-Road Vehicles	3.81	3.51	8.03	33.06	0.07	0.51	0.50	0.24	0.74
	Total Other Mobile	3.76	3.50	7.39	31.45	0.04	0.35	0.34	0.30	0.01
	Total Anthropogenic	18.84	13.63	17.09	66.92	0.32	57.81	29.18	4.31	2.60
	Total Natural Sources	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
	Grand Total	54.26	48.08	18.01	88.84	0.46	60.02	31.29	6.10	3.42

	SOIVIIVIER PLAININING EIVIISSIO			CAILO						
MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Fuel Co	ombustion									
10	Electric Utilities	0.10	0.02	0.59	0.14	0.18	0.02	0.02	0.02	0.03
20	Cogeneration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	Manufacturing and Industrial	0.07	0.02	0.11	0.98	0.00	0.02	0.02	0.02	0.00
52	Food and Agricultural Processing	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
60	Service and Commercial	0.10	0.05	0.24	0.57	0.01	0.03	0.03	0.03	0.01
99	Other (Fuel Combustion)	0.01	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00
	Total Fuel Combustion	0.29	0.10	1.02	1.72	0.19	0.07	0.07	0.07	0.05
	Disposal									
110	Sewage Treatment	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	Landfills	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	Incineration	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Waste Disposal	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.01
	ng and Surface Coatings	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210	Laundering	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	1.79	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230	Coatings and Related Processes	1.52	1.47	0.00	0.00	0.00	0.08	0.08	0.08	0.00
240	Printing	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	Adhesives and Sealants	0.16	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
299	Other (Cleaning and Surface Coatings)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Cleaning and Surface Coatings	3.64	1.97	0.00	0.00	0.00	0.08	0.08	0.08	0.00
Petrol	eum Production and Marketing									
310	Oil and Gas Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330	Petroleum Marketing	1.41	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
399	Other (Petroleum Production and	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Marketing)									
	Total Petroleum Production and	1.41	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Marketing									
Indust	rial Processes									
410	Chemical	0.14	0.14	0.00	0.00	0.00	0.01	0.01	0.01	0.00
420	Food and Agriculture	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02
430	Mineral Processes	0.03	0.03	0.00	0.00	0.00	0.36	0.00	0.05	0.00
440	Metal Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
450	Wood and Paper	0.00	0.00	0.00	0.00	0.00	0.28	0.19	0.12	0.00
470	Electronics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
499	Other (Industrial Processes)	0.08	0.07	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Industrial Processes	0.28	0.27	0.00	0.00	0.00	0.68	0.36	0.20	0.02
Solven	t Evaporation									L
510	Consumer Products	4.12	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.59
540	Asphalt Paving/Roofing	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Solvent Evaporation	4.76	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.59

#### TABLE I-3

			(Continu	ed)						
MSC	DESC	TOG	VOC	NOX	со	SOX	PM	PM10	PM2.5	NH3
Miscell	aneous Processes									
610	Residential Fuel Combustion	0.22	0.10	0.31	0.55	0.00	0.09	0.08	0.08	0.00
620	Farming Operations	0.86	0.07	0.00	0.00	0.00	0.69	0.31	0.05	0.34
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	39.24	19.20	1.92	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	12.08	5.52	0.83	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	4.80	2.85	0.29	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	2.25	1.17	0.16	0.00
660	Fires	0.01	0.01	0.00	0.08	0.00	0.01	0.01	0.01	0.00
670	Waste Burning and Disposal	0.01	0.01	0.01	0.12	0.00	0.02	0.02	0.01	0.00
690	Cooking	0.07	0.03	0.00	0.00	0.00	0.28	0.28	0.28	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
	RECLAIM	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00
	Total Miscellaneous Processes	1.17	0.21	0.56	0.75	0.00	59.45	29.45	3.63	1.22
On Por	ad Motor Vehicles									
710	Light Duty Passenger (LDA)	1.03	0.98	0.42	9.39	0.02	0.09	0.09	0.03	0.19
722	Light Duty Frucks - 1 (LDT1)	0.27	0.98	0.42	2.54	0.02	0.09	0.09	0.03	0.19
723	Light Duty Trucks - 2 (LDT2)	0.52	0.25	0.13	6.33	0.00	0.01	0.01	0.00	0.02
724	Medium Duty Trucks (MDV)	0.52	0.43	0.41	5.54	0.01	0.03	0.03	0.02	0.08
732	Light Heavy Duty Trucks - 1 (LHDT1)	0.06	0.48	0.41	0.31	0.01	0.04	0.04	0.01	0.08
733	Light Heavy Duty Trucks - 2 (LHDT2)	0.00	0.00	0.18	0.07	0.00	0.02	0.02	0.01	0.02
734	Medium Heavy Duty Trucks (MHDT)	0.01	0.01	0.07	0.39	0.00	0.01	0.01	0.00	0.01
736	Heavy Heavy Duty Trucks (HHDT)	0.03	0.10	3.33	1.20	0.00	0.02	0.02	0.01	0.34
742	Motorcycles (MCY)	0.13	0.10	0.02	0.66	0.02	0.21	0.21	0.10	0.00
743	Buses	0.23	0.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00
744	Motor Gomes (MH)	0.08	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.02
/44	Total On-Road Motor Vehicles	2.94	<b>2.67</b>	5.50	27.17	0.00	0.00	0.00	0.00	0.86
		2.54	2.07	5.50	27.17	0.00	0.47	0.47	0.15	0.00
Other N	l Mobile Sources									
810	Aircraft	0.09	0.08	0.40	1.22	0.04	0.03	0.03	0.02	0.00
820	Trains	0.21	0.18	4.07	0.95	0.00	0.10	0.10	0.09	0.00
840	Recreational Boats	0.66	0.62	0.10	1.84	0.00	0.03	0.03	0.02	0.00
850	Off-Road Recreational Vehicles	0.12	0.12	0.00	0.15	0.00	0.00	0.00	0.00	0.00
860	Off-Road Equipment	2.10	1.96	1.84	27.52	0.00	0.13	0.12	0.10	0.00
861	Off-Road Equipment (PERP)	0.04	0.03	0.29	0.27	0.00	0.01	0.01	0.01	0.00
870	Farm Equipment	0.10	0.09	0.34	0.98	0.00	0.02	0.02	0.02	0.00
890	Fuel Storage and Handling	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	3.54	3.30	7.05	32.92	0.05	0.32	0.31	0.27	0.01
Natura	l Sources									
910	Biogenic Sources	33.56	32.91	0.69	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.60
920	Wildfires	1.86	1.53	0.00	21.92	0.00	2.20	2.12	1.79	0.80
330	Total Natural Sources Category	35.42	34.45	0.23	21.92 21.92	0.14 0.14	2.20 2.20	2.12	1.79 1.79	0.22
		55.42	J7.4J	0.32	21.72	0.14	2.20	2.12	1./3	0.02
Total St	tationary and Area Sources	11.57	6.79	1.59	2.47	0.20	60.29	29.95	3.98	1.89
Total O	n-Road Vehicles	2.94	2.67	5.50	27.17	0.08	0.47	0.47	0.19	0.86
Total O	ther Mobile	3.54	3.30	7.05	32.92	0.05	0.32	0.31	0.27	0.01
Total A	nthropogenic	18.05	12.77	14.14	62.57	0.32	61.07	30.73	4.44	2.76
Total N	latural Sources	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
Grand	Total	53.47	47.21	15.05	84.49	0.46	63.28	32.84	6.24	3.58

MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3
	ombustion									
10	Electric Utilities	0.10	0.02	0.80	0.14	0.17	0.02	0.02	0.02	0.02
20	Cogeneration	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00
50	Manufacturing and Industrial	0.07	0.02	0.12	1.01	0.00	0.02	0.02	0.02	0.00
52	Food and Agricultural Processing	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.02	0.00
60	Service and Commercial	0.10	0.05	0.24	0.56	0.00	0.03	0.03	0.03	0.02
99	Other (Fuel Combustion)	0.01	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.00
55	Total Fuel Combustion	0.28	0.10	1.24	1.73	0.18	0.07	0.07	0.00	0.05
Waste	Disposal									
110	Sewage Treatment	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	Landfills	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	Incineration	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Waste Disposal	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Cleanii	ng and Surface Coatings									
210	Laundering	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	1.88	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230	Coatings and Related Processes	1.61	1.56	0.00	0.00	0.00	0.09	0.08	0.08	0.00
240	Printing	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	Adhesives and Sealants	0.17	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
299	Other (Cleaning and Surface Coatings)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Cleaning and Surface Coatings	3.83	2.08	0.00	0.00	0.00	0.09	0.08	0.08	0.00
<u> </u>										
	eum Production and Marketing	0.00	0.00		0.00	0.00				0.00
310	Oil and Gas Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330	Petroleum Marketing	1.40	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and	1.40	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Marketing									
	rial Processes	0.15	0.15	0.00	0.00	0.00	0.01	0.01	0.01	0.00
410	Chemical	0.15	0.15	0.00	0.00	0.00	0.01	0.01	0.01	0.00
420	Food and Agriculture	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02
430	Mineral Processes	0.03	0.03	0.00	0.00	0.00	0.38	0.13	0.05	0.00
440	Metal Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
450	Wood and Paper	0.00	0.00	0.00	0.00	0.00	0.30	0.21	0.13	0.00
470	Electronics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
499	Other (Industrial Processes)	0.08	0.08	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Industrial Processes	0.29	0.28	0.00	0.00	0.00	0.72	0.38	0.21	0.02
Solven	t Evaporation								┨────┦	
510	Consumer Products	4.36	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Architectural Coatings and Related Solvent	0.36	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	, a childen and couldings and Related SOIVEIIL	0.50	0.50							
520 530	Pesticides/Fertilizers	0.22	0.22	0.00	0 00	0 00	0 00	0 00	0 00	
520 530 540	Pesticides/Fertilizers Asphalt Paving/Roofing	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.58

TABLE I-4

			(Continu	ed)						
MSC	DESC	TOG	VOC	NOX	со	SOX	PM	PM10	PM2.5	NH3
Miscella	aneous Processes								[	
610	Residential Fuel Combustion	0.21	0.10	0.29	0.55	0.00	0.09	0.08	0.08	0.00
620	Farming Operations	0.86	0.07	0.00	0.00	0.00	0.68	0.31	0.05	0.34
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	41.06	20.09	2.01	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	12.60	5.76	0.86	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	4.80	2.85	0.28	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	2.24	1.16	0.16	0.00
660	Fires	0.01	0.01	0.00	0.08	0.00	0.01	0.01	0.01	0.00
670	Waste Burning and Disposal	0.01	0.01	0.01	0.12	0.00	0.02	0.02	0.01	0.00
690	Cooking	0.07	0.03	0.00	0.00	0.00	0.30	0.30	0.30	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92
	Total Miscellaneous Processes	1.17	0.21	0.30	0.75	0.00	61.78	30.58	3.77	1.26
On-Roa	d Motor Vehicles									
710	Light Duty Passenger (LDA)	0.87	0.84	0.33	7.75	0.02	0.09	0.09	0.03	0.20
722	Light Duty Trucks - 1 (LDT1)	0.20	0.19	0.11	1.87	0.00	0.01	0.01	0.00	0.02
723	Light Duty Trucks - 2 (LDT2)	0.48	0.45	0.31	5.68	0.01	0.06	0.06	0.02	0.13
724	Medium Duty Trucks (MDV)	0.44	0.42	0.29	4.46	0.01	0.04	0.04	0.01	0.09
732	Light Heavy Duty Trucks - 1 (LHDT1)	0.05	0.04	0.13	0.28	0.00	0.02	0.02	0.01	0.02
733	Light Heavy Duty Trucks - 2 (LHDT2)	0.01	0.01	0.05	0.05	0.00	0.01	0.01	0.00	0.01
734	Medium Heavy Duty Trucks (MHDT)	0.04	0.03	0.33	0.32	0.00	0.02	0.02	0.01	0.07
736	Heavy Heavy Duty Trucks (HHDT)	0.13	0.10	1.66	1.26	0.02	0.20	0.20	0.08	0.36
742	Motorcycles (MCY)	0.25	0.24	0.02	0.62	0.00	0.00	0.00	0.00	0.00
743	Buses	0.08	0.01	0.05	0.74	0.00	0.00	0.00	0.00	0.02
744	Motor Gomes (MH)	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00
	Total On-Road Motor Vehicles	2.58	2.35	3.30	23.06	0.07	0.46	0.46	0.17	0.92
Other N	Aobile Sources									
810	Aircraft	0.09	0.08	0.45	1.22	0.04	0.03	0.03	0.02	0.00
820	Trains	0.21	0.18	4.19	1.02	0.00	0.09	0.09	0.09	0.00
840	Recreational Boats	0.58	0.55	0.10	1.79	0.00	0.03	0.03	0.02	0.00
850	Off-Road Recreational Vehicles	0.11	0.11	0.00	0.16	0.00	0.00	0.00	0.00	0.00
860	Off-Road Equipment	1.77	1.65	1.53	25.67	0.00	0.11	0.10	0.09	0.00
861	Off-Road Equipment (PERP)	0.03	0.03	0.23	0.28	0.00	0.01	0.01	0.01	0.00
870	Farm Equipment	0.08	0.07	0.29	0.86	0.00	0.02	0.02	0.02	0.00
890	Fuel Storage and Handling	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	3.09	2.88	6.80	31.00	0.05	0.29	0.28	0.24	0.01
Natural	Sources									<u> </u>
910	Biogenic Sources	33.56	32.91	0.69	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
930	Wildfires	1.86	1.53	0.23	21.92	0.14	2.20	2.12	1.79	0.22
	Total Natural Sources Category	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
	Total Stationary and Area Sources	12.02	7.13	1.54	2.49	0.19	62.66	31.11	4.13	1.93
	Total On-Road Vehicles	2.58	2.35	3.30	23.06	0.07	0.46	0.46	0.17	0.92
	Total Other Mobile	3.09	2.88	6.80	31.00	0.05	0.29	0.28	0.24	0.01
	Total Anthropogenic	17.69	12.35	11.65	56.55	0.31	63.40	31.84	4.54	2.85
	Total Natural Sources	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
	Grand Total	53.11	46.80	12.56	78.47	0.45	65.60	33.96	6.34	3.67

#### 2029 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN COACHELLA VALLEY (TONS/DAY)

**TABLE I-5** 

MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Fuel Co	ombustion									
10	Electric Utilities	0.09	0.02	0.71	0.12	0.15	0.02	0.02	0.02	0.02
20	Cogeneration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	Manufacturing and Industrial	0.07	0.02	0.11	1.00	0.00	0.02	0.02	0.02	0.00
52	Food and Agricultural Processing	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
60	Service and Commercial	0.10	0.05	0.24	0.54	0.01	0.03	0.03	0.03	0.02
99	Other (Fuel Combustion)	0.01	0.01	0.07	0.02	0.00	0.00	0.00	0.00	0.0
	Total Fuel Combustion	0.27	0.10	1.14	1.69	0.17	0.06	0.06	0.06	0.0
Waste	Disposal									
110	Sewage Treatment	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.0
120	Landfills	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
130	Incineration	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.0
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
199	Other (Waste Disposal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Total Waste Disposal	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.0
	ng and Surface Coatings	0.10	0.01	0.00		0.00		0.00		
210	Laundering	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.0
220	Degreasing	1.92	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.0
230	Coatings and Related Processes	1.66	1.60	0.00	0.00	0.00	0.09	0.09	0.08	0.0
240	Printing	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.0
250	Adhesives and Sealants	0.17	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.0
299	Other (Cleaning and Surface Coatings)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Total Cleaning and Surface Coatings	3.93	2.15	0.00	0.00	0.00	0.09	0.09	0.08	0.0
Petrole	Leum Production and Marketing									
310	Oil and Gas Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
330	Petroleum Marketing	1.37	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.0
399	Other (Petroleum Production and	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Marketing)	1.27	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	Total Petroleum Production and Marketing	1.37	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.0
	-									
Indust	rial Processes									
410	Chemical	0.15	0.15	0.00	0.00	0.00	0.01	0.01	0.01	0.0
420	Food and Agriculture	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.0
430	Mineral Processes	0.03	0.03	0.00	0.00	0.00	0.38	0.13	0.05	0.0
440	Metal Processes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
450	Wood and Paper	0.00	0.00	0.00	0.00	0.00	0.32	0.22	0.13	0.0
470	Electronics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
499	Other (Industrial Processes)	0.08	0.08	0.00	0.00	0.00	0.03	0.02	0.02	0.0
	Total Industrial Processes	0.30	0.29	0.00	0.00	0.00	0.74	0.39	0.22	0.0
	L									
Cal	t Evaporation		2.64	0.00	0.00	0.00	0.00	0.00	0.00	
	Contraction Development	4 - 0		0.00	0.00	0.00	0.00	0.00	0.00	0.0
510	Consumer Products	4.58	3.64			0.00	0.00		0.00	
510 520	Architectural Coatings and Related Solvent	0.38	0.38	0.00	0.00	0.00	0.00	0.00	0.00	
510						0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.0 0.5 0.0

			(Continu	ed)						
MSC	DESC	TOG	voc	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Miscella	aneous Processes									
610	Residential Fuel Combustion	0.21	0.10	0.28	0.55	0.00	0.09	0.08	0.08	0.00
620	Farming Operations	0.86	0.07	0.00	0.00	0.00	0.68	0.31	0.05	0.34
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	42.21	20.65	2.06	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	13.11	6.00	0.90	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	4.79	2.85	0.28	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	2.23	1.16	0.16	0.00
660	Fires	0.01	0.01	0.00	0.08	0.00	0.01	0.01	0.01	0.00
670	Waste Burning and Disposal	0.01	0.01	0.01	0.12	0.00	0.02	0.02	0.01	0.00
690	Cooking	0.07	0.03	0.00	0.00	0.00	0.30	0.30	0.30	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
	Total Miscellaneous Processes	1.17	0.21	0.28	0.74	0.00	63.44	31.37	3.86	1.31
On-Roa	d Motor Vehicles									
710	Light Duty Passenger (LDA)	0.76	0.73	0.29	6.76	0.02	0.09	0.09	0.03	0.21
722	Light Duty Trucks - 1 (LDT1)	0.16	0.15	0.08	1.42	0.02	0.01	0.01	0.00	0.02
723	Light Duty Trucks - 2 (LDT2)	0.45	0.42	0.27	5.40	0.01	0.06	0.06	0.02	0.14
724	Medium Duty Trucks (MDV)	0.38	0.36	0.22	3.88	0.01	0.04	0.04	0.01	0.09
725	Light Heavy Duty Trucks - 1 (LHDT1)	0.04	0.04	0.10	0.27	0.00	0.02	0.02	0.01	0.02
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.01	0.01	0.04	0.05	0.00	0.01	0.01	0.00	0.01
727	Medium Heavy Duty Trucks (MHDT)	0.04	0.03	0.25	0.28	0.00	0.02	0.02	0.01	0.07
728	Heavy Heavy Duty Trucks (HHDT)	0.14	0.11	1.40	1.31	0.02	0.22	0.22	0.09	0.38
750	Motorcycles (MCY)	0.26	0.25	0.02	0.59	0.00	0.00	0.00	0.00	0.00
775	Buses	0.08	0.01	0.04	0.73	0.00	0.00	0.00	0.00	0.02
780	Motor Gomes (MH)	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	Total On-Road Motor Vehicles	2.32	2.11	2.71	20.67	0.07	0.47	0.47	0.18	0.97
Other N	Aobile Sources									
810	Aircraft	0.09	0.08	0.51	1.23	0.04	0.03	0.03	0.02	0.00
810	Trains	0.09	0.08	4.41	1.23	0.04	0.03	0.03	0.02	0.00
840	Recreational Boats	0.22	0.18	0.09	1.08	0.00	0.10	0.10	0.09	0.00
850	Off-Road Recreational Vehicles	0.09	0.48	0.09	0.16	0.00	0.03	0.02	0.02	0.00
860	Off-Road Equipment	1.38	1.29	1.30	22.39	0.00	0.00	0.00	0.00	0.00
861	Off-Road Equipment (PERP)	0.03	0.03	0.20	0.30	0.00	0.05	0.05	0.00	0.00
870	Farm Equipment	0.03	0.05	0.20	0.30	0.00	0.01	0.01	0.00	0.00
890	Fuel Storage and Handling	0.07	0.22	0.00	0.00	0.00	0.02	0.02	0.01	0.00
050	Total Other Mobile Sources	2.61	2.43	6.76	27.66	0.05	0.00	0.26	0.23	0.00
	Sources									
910	Biogenic Sources	33.56	32.91	0.69	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
930	Wildfires	1.86	1.53	0.23	21.92	0.14	2.20	2.12	1.79	0.22
	Total Natural Sources Category	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
Total St	Lationary and Area Sources	12.34	7.40	1.43	2.43	0.17	64.34	31.92	4.23	1.97
Total O	n-Road Vehicles	2.32	2.11	2.71	20.67	0.07	0.47	0.47	0.18	0.97
Total O	ther Mobile	2.61	2.43	6.76	27.66	0.05	0.27	0.26	0.23	0.01
Total A	nthropogenic	17.27	11.94	10.91	50.76	0.29	65.08	32.65	4.63	2.94
Total N	atural Sources	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
Grand		52.69	46.39	11.82	72.68	0.43	67.28	34.77	6.43	3.76

#### 2031 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN COACHELLA VALLEY (TONS/DAY)

	MANANTINA LIANSSIONS DI	000110	- 0/11					.,	(1011	-/
MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Fuel C	ombustion									
10	Electric Utilities	0.08	0.02	0.67	0.11	0.14	0.01	0.01	0.01	0.02
20	Cogeneration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	Manufacturing and Industrial	0.07	0.02	0.11	0.99	0.00	0.02	0.02	0.02	0.00
52	Food and Agricultural Processing	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
60	Service and Commercial	0.10	0.05	0.24	0.53	0.01	0.03	0.03	0.03	0.02
99	Other (Fuel Combustion)	0.01	0.01	0.08	0.02	0.00	0.00	0.00	0.00	0.00
	Total Fuel Combustion	0.27	0.10	1.10	1.66	0.16	0.06	0.06	0.06	0.05
Waste	Disposal									
110	Sewage Treatment	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	Landfills	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130	Incineration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140	Soil Remediation	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155	Total Waste Disposal	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
		0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.0.
Cleani	ng and Surface Coatings									
210	Laundering	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	1.93	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230	Coatings and Related Processes	1.68	1.63	0.00	0.00	0.00	0.09	0.09	0.08	0.00
240	Printing	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250	Adhesives and Sealants	0.17	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
299	Other (Cleaning and Surface Coatings)	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Cleaning and Surface Coatings	3.97	2.17	0.00	0.00	0.00	0.09	0.09	0.08	0.00
Petrol	eum Production and Marketing									
310	Oil and Gas Production	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330	Petroleum Marketing	1.36	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and Marketing	1.36	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Induct	rial Processes									
410	Chemical	0.15	0.15	0.00	0.00	0.00	0.01	0.01	0.01	0.00
410	Food and Agriculture	0.13	0.13	0.00	0.00	0.00	0.01	0.01	0.01	0.00
420	Mineral Processes	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.02
430	Mineral Processes	0.03	0.03	0.00	0.00	0.00	0.38	0.13	0.03	0.00
440	Wood and Paper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
450	Electronics	0.00	0.00	0.00	0.00	0.00	0.32	0.23	0.14	0.00
470	Other (Industrial Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
499	Total Industrial Processes	0.08	0.08	0.00	0.00	0.00	0.03 0.74	0.02	0.02	0.00
		0.50	0.25	0.00	0.00	0.00	0.74	0.40	0.22	0.02
Solver	t Evaporation									
510	Consumer Products	4.77	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.58
540	Asphalt Paving/Roofing	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Solvent Evaporation	5.48	4.49	0.00	0.00	0.00	0.00	0.00	0.00	0.58

			(Continu	ied)						
MSC	DESC	TOG	VOC	NOX	со	SOX	PM	PM10	PM2.5	NH3
Miscell	aneous Processes									[
610	Residential Fuel Combustion	0.21	0.10	0.27	0.55	0.00	0.09	0.08	0.08	0.00
620	Farming Operations	0.86	0.07	0.00	0.00	0.00	0.67	0.31	0.05	0.34
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	42.98	21.03	2.10	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	13.34	6.10	0.92	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	4.79	2.85	0.28	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	2.23	1.16	0.16	0.00
660	Fires	0.01	0.01	0.00	0.08	0.00	0.01	0.01	0.01	0.00
670	Waste Burning and Disposal	0.01	0.01	0.01	0.12	0.00	0.02	0.02	0.01	0.00
690	Cooking	0.08	0.03	0.00	0.00	0.00	0.31	0.31	0.31	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
	Total Miscellaneous Processes	1.17	0.21	0.28	0.74	0.00	64.43	31.85	3.92	1.34
On-Roa	ad Motor Vehicles									
710	Light Duty Passenger (LDA)	0.70	0.68	0.27	6.38	0.02	0.09	0.09	0.03	0.21
722	Light Duty Trucks - 1 (LDT1)	0.13	0.00	0.06	1.19	0.02	0.05	0.01	0.00	0.02
723	Light Duty Trucks - 2 (LDT2)	0.43	0.41	0.25	5.35	0.01	0.06	0.06	0.02	0.15
724	Medium Duty Trucks (MDV)	0.35	0.33	0.20	3.69	0.01	0.04	0.04	0.01	0.09
725	Light Heavy Duty Trucks - 1 (LHDT1)	0.03	0.03	0.08	0.25	0.00	0.02	0.02	0.01	0.02
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.01	0.01	0.03	0.04	0.00	0.01	0.01	0.00	0.01
727	Medium Heavy Duty Trucks (MHDT)	0.03	0.03	0.21	0.25	0.00	0.02	0.02	0.01	0.07
728	Heavy Heavy Duty Trucks (HHDT)	0.14	0.11	1.31	1.32	0.02	0.22	0.22	0.09	0.39
750	Motorcycles (MCY)	0.26	0.25	0.02	0.58	0.00	0.00	0.00	0.00	0.00
775	Buses	0.08	0.01	0.03	0.69	0.00	0.00	0.00	0.00	0.02
780	Motor Gomes (MH)	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
	Total On-Road Motor Vehicles	2.18	1.98	2.48	19.75	0.07	0.48	0.48	0.18	0.99
Other	Mobile Sources									
		0.00	0.00	0.54	1.23	0.04	0.02	0.02	0.02	0.00
810 820	Aircraft Trains	0.09	0.09	0.54 4.51	1.23	0.04	0.03	0.03	0.02	0.00
820	Recreational Boats	0.22	0.18	0.09	1.13	0.00	0.10	0.10	0.09	0.00
850	Off-Road Recreational Vehicles	0.47	0.43	0.09	0.16	0.00	0.03	0.02	0.02	0.00
860	Off-Road Equipment	1.20	1.12	1.18	19.70	0.00	0.00	0.08	0.00	0.00
861	Off-Road Equipment (PERP)	0.03	0.03	0.20	0.31	0.00	0.00	0.00	0.00	0.00
870	Farm Equipment	0.06	0.06	0.20	0.67	0.00	0.00	0.00	0.00	0.00
890	Fuel Storage and Handling	0.22	0.22	0.00	0.00	0.00	0.01	0.00	0.00	0.00
050	Total Other Mobile Sources	2.38	2.21	6.74	24.96	0.00	0.26	0.25	0.22	0.00
	l Sources									
910	Biogenic Sources	33.56	32.91	0.69	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
930	Wildfires	1.86	1.53	0.23	21.92	0.14	2.20	2.12	1.79	0.22
	Total Natural Sources Category	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
	Total Stationary and Area Sources	12.57	7.60	1.39	2.41	0.16	65.33	32.40	4.29	1.99
	Total On-Road Vehicles	2.18	1.98	2.48	19.75	0.07	0.48	0.48	0.18	0.99
	Total Other Mobile	2.38	2.21	6.74	24.96	0.05	0.26	0.25	0.22	0.01
	Total Anthropogenic	17.13	11.79	10.61	47.13	0.29	66.07	33.13	4.68	2.98
	Total Natural Sources	35.42	34.45	0.92	21.92	0.14	2.20	2.12	1.79	0.82
	Grand Total	52.55	46.24	11.53	69.04	0.43	68.28	35.25	6.48	3.81

# TABLE I-7 2018 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN SOUTH COAST AIR BASIN (TONS/DAY)

MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Fuel Co	ombustion									
10	Electric Utilities	2.33	0.33	0.65	3.62	0.23	0.46	0.46	0.46	0.58
20	Cogeneration	0.04	0.01	0.02	0.11	0.00	0.02	0.01	0.01	0.17
30	Oil and Gas Production	1.57	0.12	0.58	0.81	0.01	0.12	0.11	0.11	0.26
20	Cogeneration	6.57	1.38	0.00	5.18	0.01	1.81	1.80	1.80	1.54
50	Manufacturing and Industrial	4.11	0.95	6.81	44.65	1.41	1.43	1.35	1.31	2.21
52	Food and Agricultural Processing	0.10	0.05	0.22	0.54	0.00	0.06	0.06	0.06	0.06
60	Service and Commercial	5.14	1.90	8.73	17.63	0.77	1.04	1.04	1.03	2.16
99	Other (Fuel Combustion)	0.84	0.67	3.09	1.26	0.01	0.54	0.51	0.49	0.30
	Total Fuel Combustion	20.70	5.41	20.10	73.80	2.46	5.47	5.34	5.26	7.29
Waste	Disposal									
110	Sewage Treatment	0.39	0.28	0.00	0.00	0.00	0.02	0.00	0.00	0.21
120	Landfills	621.99	8.64	0.48	0.41	0.38	0.22	0.22	0.21	3.97
130	Incineration	0.21	0.04	1.02	0.26	0.07	0.12	0.06	0.05	0.23
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	95.37	7.67	0.01	0.01	0.00	0.00	0.00	0.00	1.79
	Total Waste Disposal	717.96	16.62	1.51	0.68	0.46	0.36	0.28	0.27	6.20
Cleanir	ng and Surface Coatings									
210	Laundering	3.43	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	67.41	13.00	0.00	0.00	0.00	0.03	0.03	0.03	0.01
230	Coatings and Related Processes	19.03	18.61	0.00	0.00	0.00	1.64	1.57	1.51	0.13
240	Printing	0.75	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.04
250	Adhesives and Sealants	5.82	5.14	0.00	0.00	0.00	0.03	0.03	0.03	0.00
299	Other (Cleaning and Surface Coatings)	0.64	0.63	0.01	0.11	0.00	0.01	0.01	0.01	0.00
	Total Cleaning and Surface Coatings	97.07	38.31	0.01	0.12	0.00	1.71	1.64	1.58	0.18
Petrole	um Production and Marketing									
310	Oil and Gas Production	5.10	2.35	0.01	0.02	0.06	0.04	0.03	0.02	0.00
320	Petroleum Refining	6.37	4.44	0.23	2.40	0.24	1.87	1.25	0.89	0.07
330	Petroleum Marketing	54.87	13.85	0.00	0.23	0.00	0.01	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.04	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and Marketing	66.38	20.67	0.25	2.66	0.30	1.92	1.28	0.91	0.07
Industr	ial Processes									
410	Chemical	4.64	4.48	0.03	0.12	0.05	0.51	0.44	0.42	0.01
420	Food and Agriculture	0.55	0.52	0.01	0.01	0.01	0.30	0.14	0.06	0.00
430	Mineral Processes	0.45	0.40	0.02	0.36	0.05	9.46	3.90	1.12	0.06
440	Metal Processes	0.12	0.10	0.06	0.26	0.03	0.38	0.30	0.23	0.00
450	Wood and Paper	0.24	0.24	0.00	0.00	0.00	6.43	4.50	2.70	0.01
460	Glass and Related Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
470	Electronics	0.02	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
499	Other (Industrial Processes)	5.69	5.07	0.01	0.01	0.00	1.16	0.79	0.51	8.59
	Total Industrial Processes	11.70	10.84	0.12	0.75	0.15	18.26	10.09	5.05	8.68
Solvent	Evaporation									
510	Consumer Products	135.71	107.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	10.62	10.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	1.12	1.12	0.00	0.00	0.00	0.00	0.00	0.00	1.23
540	Asphalt Paving/Roofing	1.30	1.20	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Solvent Evaporation	148.76	120.28	0.00	0.00	0.00	0.03	0.03	0.03	1.23

			(Cont	inued)						
MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Miscell	aneous Processes									
610	Residential Fuel Combustion	4.94	2.25	19.10	13.58	0.13	2.26	2.20	2.16	0.02
620	Farming Operations	22.24	1.86	0.00	0.00	0.00	1.58	0.79	0.18	10.26
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	72.15	35.31	3.53	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	133.09	60.85	9.13	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	28.47	16.92	1.69	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	4.60	2.27	0.33	0.00
660	Fires	0.34	0.29	0.08	3.02	0.00	0.45	0.44	0.41	0.00
670	Waste Burning and Disposal	0.26	0.21	0.10	2.88	0.02	0.31	0.30	0.26	0.03
690	Cooking	2.73	1.08	0.00	0.00	0.00	11.44	11.44	11.44	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.98
	RECLAIM	0.00	0.00	18.15	0.00	5.50	0.00	0.00	0.00	0.00
	Total Miscellaneous Processes	30.50	5.69	37.42	19.49	5.65	254.36	130.51	29.13	36.30
On-Roa	d Motor Vehicles									
710	Light Duty Passenger (LDA)	43.23	39.84	24.82	432.70	0.77	4.38	4.33	1.61	6.98
722	Light Duty Trucks - 1 (LDT1)	9.17	8.37	5.85	83.50	0.08	0.45	0.44	0.18	0.71
723	Light Duty Trucks - 2 (LDT2)	18.78	17.05	17.98	208.09	0.35	1.70	1.68	0.63	2.65
724	Medium Duty Trucks (MDV)	17.31	15.57	17.62	178.36	0.30	1.21	1.19	0.45	1.85
725	Light Heavy Duty Trucks - 1 (LHDT1)	2.43	2.22	8.37	14.67	0.04	0.70	0.70	0.30	0.49
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.44	0.40	2.36	2.22	0.01	0.19	0.19	0.08	0.15
727	Medium Heavy Duty Trucks (MHDT)	2.24	1.93	28.46	14.36	0.08	1.11	1.11	0.82	0.79
728	Heavy Heavy Duty Trucks (HHDT)	3.49	1.99	58.71	16.16	0.17	2.30	2.29	1.36	1.94
750	Motorcycles (MCY)	7.86	7.45	0.89	25.24	0.00	0.03	0.03	0.01	0.01
775	Buses	3.27	0.61	5.51	22.66	0.01	0.23	0.23	0.13	0.76
780	Motor Gomes (MH)	0.47	0.45	0.72	1.98	0.01	0.04	0.04	0.03	0.03
	Total On-Road Motor Vehicles	108.69	95.87	171.28	999.92	1.83	12.34	12.23	5.59	16.36
Other N	Aobile Sources									
810	Aircraft	3.67	3.53	17.16	36.70	1.64	0.79	0.77	0.68	0.00
820	Trains	0.82	0.69	15.10	3.55	0.02	0.37	0.37	0.34	0.01
833	Ocean Going Vessels	10.93	9.36	32.21	4.32	2.04	0.69	0.69	0.64	0.02
835	Commercial Harbor Crafts	0.39	0.33	5.86	1.25	0.00	0.25	0.25	0.23	0.00
840	Recreational Boats	24.14	22.49	3.86	67.11	0.01	1.48	1.33	1.00	0.01
850	Off-Road Recreational Vehicles	1.64	1.62	0.03	1.54	0.00	0.01	0.01	0.00	0.00
860	Off-Road Equipment	64.20	59.50	59.48	681.15	0.10	2.96	2.88	2.54	0.10
861	Off-Road Equipment (PERP)	0.90	0.76	8.83	4.80	0.01	0.34	0.34	0.31	0.01
870	Farm Equipment	0.45	0.41	0.81	6.09	0.00	0.06	0.05	0.05	0.00
890	Fuel Storage and Handling	8.48	8.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	115.62	107.16	143.35	806.50	3.82	6.93	6.68	5.79	0.16
Natura	Sources									
910	Biogenic Sources	226.62	221.66	6.30	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
930	Wildfires	109.99	90.85	11.63	465.28	3.89	49.07	47.16	39.95	0.00
	Total Natural Sources Category	336.61	312.51	17.93	465.28	3.89	49.07	47.16	39.95	1.73
Total S	ationary and Area Sources	1093.04	217.83	51.61	104.29	9.01	282.23	149.29	42.36	60.59
Total O	n-Road Vehicles	108.69	95.87	171.28	999.92	1.83	12.34	12.23	5.59	16.36
Total O	ther Mobile	115.62	107.16	143.35	806.50	3.82	6.93	6.68	5.79	0.16
Total A	nthropogenic	1317.36	420.87	366.23	1910.71	14.67	301.51	168.20	53.74	77.12
Total N	atural Sources	336.61	312.51	17.93	465.28	3.89	49.07	47.16	39.95	1.73
Grand	Total	1653.97	733.38	384.16	2376.00	18.55	350.58	215.36	93.69	78.85

# TABLE I-8 2020 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN SOUTH COAST AIR BASIN (TONS/DAY)

2020	SUMMER PLANNING EMISSIONS E			GORTIN	13001	п CUAS		DASIN		JATJ
MSC	DESC	TOG	VOC	NOX	со	SOX	PM	PM10	PM2.5	NH3
Fuel Co	mbustion									
10	Electric Utilities	3.11	0.36	0.22	4.65	0.24	0.62	0.62	0.61	0.80
20	Cogeneration	0.03	0.01	0.02	0.12	0.00	0.02	0.01	0.01	0.18
30	Oil and Gas Production (Combustion)	1.11	0.13	0.62	0.61	0.01	0.10	0.10	0.10	0.19
40	Petroleum Refining (Combustion)	6.57	1.38	0.00	5.18	0.00	1.81	1.80	1.80	1.54
50	Manufacturing and Industrial	4.30	0.94	6.53	47.86	1.41	1.47	1.39	1.35	2.31
52	Food and Agricultural Processing	0.10	0.05	0.22	0.53	0.00	0.06	0.06	0.06	0.06
60	Service and Commercial	4.90	1.91	8.47	19.18	0.78	1.07	1.07	1.06	2.53
99	Other (Fuel Combustion)	0.78	0.64	2.65	1.23	0.01	0.48	0.46	0.43	0.27
	Total Fuel Combustion	20.90	5.43	18.70	79.35	2.47	5.62	5.49	5.41	7.89
Waste	Disposal									
110	Sewage Treatment	0.40	0.28	0.00	0.00	0.00	0.02	0.00	0.00	0.21
120	Landfills	631.92	8.77	0.49	0.41	0.38	0.22	0.22	0.21	4.03
130	Incineration	0.21	0.04	1.21	0.27	0.07	0.12	0.06	0.05	0.23
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	96.13	7.73	0.01	0.01	0.00	0.00	0.00	0.00	1.86
	Total Waste Disposal	728.66	16.83	1.70	0.69	0.46	0.36	0.28	0.27	6.33
Cleanir	g and Surface Coatings									
210	Laundering	3.47	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	67.96	13.13	0.00	0.00	0.00	0.03	0.03	0.03	0.01
230	Coatings and Related Processes	19.38	18.96	0.00	0.00	0.00	1.67	1.60	1.54	0.13
240	Printing	0.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.04
250	Adhesives and Sealants	5.59	4.94	0.00	0.00	0.00	0.04	0.03	0.03	0.00
299	Other (Cleaning and Surface Coatings)	0.64	0.64	0.04	0.11	0.07	0.01	0.01	0.01	0.00
	Total Cleaning and Surface Coatings	97.82	38.61	0.04	0.12	0.07	1.74	1.67	1.61	0.18
Petrole	um Production and Marketing									
310	Oil and Gas Production	5.61	2.58	0.01	0.02	0.07	0.04	0.03	0.02	0.00
320	Petroleum Refining	6.37	4.44	1.04	2.40	0.23	1.87	1.25	0.89	0.07
330	Petroleum Marketing	55.96	13.35	0.02	0.22	0.00	0.01	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.04	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and Marketing	67.98	20.41	1.08	2.65	0.30	1.92	1.28	0.91	0.07
Industr	ial Processes									
410	Chemical	4.68	4.52	0.10	0.12	0.05	0.51	0.45	0.42	0.01
420	Food and Agriculture	0.55	0.53	0.03	0.01	0.01	0.31	0.14	0.06	0.00
430	Mineral Processes	0.46	0.41	0.47	0.37	0.05	9.50	3.92	1.13	0.06
440	Metal Processes	0.13	0.11	0.26	0.27	0.03	0.40	0.32	0.24	0.00
450	Wood and Paper	0.24	0.24	0.00	0.00	0.00	6.66	4.66	2.80	0.01
460	Glass and Related Products	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
470	Electronics	0.02	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00
499	Other (Industrial Processes)	5.73	5.11	0.03	0.01	0.00	1.18	0.81	0.52	8.59
	Total Industrial Processes	11.81	10.94	0.89	0.77	0.14	18.58	10.30	5.18	8.68
								1		
Solvent	Evaporation							1		
510	Consumer Products	141.85	112.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	10.87	10.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	1.13	1.13	0.00	0.00	0.00	0.00	0.00	0.00	1.22
540	Asphalt Paving/Roofing	1.32	1.22	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Solvent Evaporation	155.17	125.64	0.00	0.00	0.00	0.03	0.03	0.03	1.22

			(Conti	nued)						
MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Miscel	laneous Processes									
610	Residential Fuel Combustion	5.16	2.34	12.43	14.37	0.14	2.40	2.33	2.30	0.02
620	Farming Operations	19.90	1.66	0.00	0.00	0.00	1.48	0.74	0.17	9.18
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	73.24	35.84	3.58	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	134.40	61.45	9.22	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	28.47	16.92	1.69	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	4.50	2.22	0.32	0.00
660	Fires	0.34	0.29	0.08	3.02	0.00	0.45	0.44	0.41	0.00
670	Waste Burning and Disposal	0.26	0.23	0.10	3.03	0.03	0.36	0.35	0.31	0.03
690	Cooking	2.76	1.09	0.00	0.00	0.00	11.58	11.58	11.58	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.37
	RECLAIM	0.00	0.00	21.01	0.00	6.10	0.00	0.00	0.00	0.00
	Total Miscellaneous Processes	28.42	5.62	33.61	20.43	6.28	256.87	131.86	29.58	35.60
On-Roa	ad Motor Vehicles									
710	Light Duty Passenger (LDA)	40.57	37.84	20.54	370.51	0.73	4.27	4.22	1.56	7.07
722	Light Duty Trucks - 1 (LDT1)	9.25	8.53	5.28	75.14	0.07	0.42	0.41	0.17	0.68
723	Light Duty Trucks - 2 (LDT2)	18.24	16.80	14.76	185.20	0.37	1.85	1.82	0.68	3.07
724	Medium Duty Trucks (MDV)	16.67	15.20	14.80	155.74	0.29	1.20	1.19	0.45	1.91
725	Light Heavy Duty Trucks - 1 (LHDT1)	2.44	2.24	7.24	13.67	0.04	0.65	0.65	0.27	0.50
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.43	0.39	2.03	2.09	0.01	0.19	0.19	0.08	0.17
727	Medium Heavy Duty Trucks (MHDT)	1.49	1.26	19.07	10.80	0.09	0.76	0.75	0.47	1.10
728	Heavy Heavy Duty Trucks (HHDT)	2.72	1.26	44.44	14.76	0.18	1.91	1.91	0.96	2.40
750	Motorcycles (MCY)	8.28	7.88	0.84	24.07	0.00	0.03	0.03	0.01	0.01
775	Buses	2.50	0.30	3.07	25.96	0.01	0.19	0.19	0.08	0.81
780	Motor Gomes (MH)	0.38	0.36	0.56	1.16	0.01	0.04	0.04	0.02	0.03
	Total On-Road Motor Vehicles	102.97	92.06	132.63	879.08	1.80	11.49	11.38	4.75	17.75
Other										
	Mobile Sources	2.01	2.47	17.40	25.22	1.00	0.70	0.75	0.07	0.00
810	Aircraft	3.61	3.47	17.42	35.73	1.60	0.78	0.75	0.67	0.00
820	Trains	0.81	0.68	15.39	3.70	0.02	0.36	0.36	0.34	0.01
833	Ocean Going Vessels	10.95	9.37	31.49	4.32	2.03	0.69	0.69	0.63	0.02
835	Commercial Harbor Craft	0.39 22.05	0.33 20.56	5.77 3.77	1.23 66.58	0.00	0.24	0.24	0.23	0.00
840 850	Recreational Boats Off-Road Recreational Vehicles	1.57	1.55	0.03	1.56	0.01	0.01	0.01	0.92	0.01
850	Off-Road Equipment	62.52	57.89	49.05	707.30	0.00	2.65	2.58	2.26	0.00
861	Off-Road Equipment (PERP)	02.32	0.64	49.03 6.98	4.81	0.10	0.26	0.26	0.24	0.07
870	Farm Equipment	0.70	0.35	0.38	6.05	0.01	0.20	0.20	0.24	0.01
890	Fuel Storage and Handling	7.88	7.88	0.00	0.00	0.00	0.00	0.00	0.04	0.00
890	Total Other Mobile Sources	110.93	102.72	130.61	831.28	3.77	6.39	6.16	5.33	0.00 0.12
	l Sources									
910	Biogenic Sources	226.62	221.66	6.3	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
930	Wildfires	452.24	373.55	38.89	1920.94	14.13	197.71	190.00	160.97	19.21
	Total Natural Sources Category	678.86	595.21	45.19	1920.94	14.13	197.71	190.00	160.97	20.94
Total S	tationary and Area Sources	1110.77	223.48	54.11	104.01	9.65	285.12	150.91	42.98	59.97
	Dn-Road Vehicles	102.97	92.06	132.63	879.08	1.80	11.49	11.38	4.75	17.75
	Other Mobile	110.93	102.72	130.61	831.28	3.77	6.39	6.16	5.33	0.12
	Anthropogenic	1324.66	418.26	317.36	1814.37	15.23	303.01	168.45	53.06	77.84
	Jatural Sources	678.86	595.21	45.19	1920.94	14.13	197.71	190.00	160.97	20.94
	Total	2003.52	1013.47	362.55	3735.31	29.36	500.71	358.45	214.03	98.79

# TABLE I-9 2023 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN SOUTH COAST AIR BASIN (TONS/DAY)

	SUMMER PLANNING EMISSIONS B								•	
MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3
	mbustion									
10	Electric Utilities	3.02	0.35	0.22	4.53	0.24	0.60	0.60	0.60	0.78
20	Cogeneration	0.04	0.01	0.02	0.12	0.00	0.02	0.01	0.01	0.18
30	Oil and Gas Production (combustion)	1.23	0.14	0.67	0.66	0.01	0.10	0.10	0.10	0.21
40	Petroleum Refining (Combustion)	6.57	1.38	0.00	5.18	0.00	1.81	1.80	1.80	1.54
50	Manufacturing and Industrial	4.29	0.95	6.51	47.48	1.41	1.47	1.39	1.35	2.30
52	Food and Agricultural Processing	0.10	0.05	0.22	0.53	0.00	0.06	0.06	0.06	0.06
60	Service and Commercial	5.01	1.96	8.59	19.35	0.80	1.08	1.08	1.07	2.52
99	Other (Fuel Combustion)	0.80	0.66	2.65	1.25	0.01	0.51	0.48	0.45	0.28
	Total Fuel Combustion	21.05	5.50	18.87	79.11	2.48	5.64	5.52	5.43	7.88
	Disposal									
110	Sewage Treatment	0.40	0.28	0.00	0.01	0.00	0.02	0.00	0.00	0.21
120	Landfills	645.65	8.96	0.45	0.41	0.39	0.22	0.22	0.22	4.11
130	Incineration	0.22	0.04	1.01	0.27	0.07	0.12	0.06	0.05	0.24
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	97.35	7.83	0.01	0.01	0.00	0.00	0.00	0.00	1.97
	Total Waste Disposal	743.63	17.12	1.46	0.70	0.47	0.37	0.29	0.27	6.52
Cleanin	g and Surface Coatings									
210	Laundering	3.55	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	69.01	13.37	0.00	0.00	0.00	0.03	0.03	0.03	0.01
230	Coatings and Related Processes	19.96	19.52	0.00	0.00	0.00	1.72	1.65	1.59	0.13
240	Printing	0.81	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.05
250	Adhesives and Sealants	5.18	4.58	0.00	0.00	0.00	0.04	0.04	0.03	0.00
299	Other (Cleaning and Surface Coatings)	0.65	0.65	0.01	0.11	0.00	0.01	0.01	0.01	0.00
	Total Cleaning and Surface Coatings	99.16	39.10	0.01	0.12	0.00	1.79	1.72	1.66	0.19
Petrole	um Production and Marketing									
310	Oil and Gas Production	6.42	2.95	0.01	0.02	0.08	0.04	0.03	0.02	0.00
320	Petroleum Refining	6.37	4.44	0.22	2.40	0.23	1.87	1.25	0.89	0.07
330	Petroleum Marketing	54.07	12.69	0.00	0.21	0.00	0.01	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.04	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and Marketing	66.91	20.11	0.24	2.64	0.31	1.92	1.28	0.91	0.07
Industr	ial Processes									
410	Chemical	4.77	4.60	0.03	0.12	0.05	0.53	0.46	0.43	0.01
420	Food and Agriculture	0.57	0.54	0.00	0.01	0.01	0.31	0.14	0.06	0.00
430	Mineral Processes	0.47	0.42	0.00	0.37	0.06	9.59	3.96	1.15	0.07
440	Metal Processes	0.13	0.11	0.05	0.28	0.03	0.43	0.34	0.26	0.00
450	Wood and Paper	0.25	0.25	0.00	0.00	0.00	7.03	4.92	2.95	0.01
460	Glass and related Products	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
470	Electronics	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.00	0.00
499	Other (Industrial Processes)	5.78	5.16	0.01	0.01	0.00	1.20	0.82	0.53	8.59
	Total Industrial Processes	11.99	11.11	0.04	0.80	0.15	19.09	10.64	5.38	8.68
Solvent	Evaporation									
510	Consumer Products	141.38	111.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	11.24	11.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	1.14	1.14	0.00	0.00	0.00	0.00	0.00	0.00	1.20
540	Asphalt Paving/Roofing	1.36	1.26	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Solvent Evaporation	155.12	125.56	0.00	0.00	0.00	0.03	0.03	0.03	1.20

			(Cont	inued)						
MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3
Miscell	aneous Processes									
610	Residential Fuel Combustion	5.08	2.31	11.69	14.09	0.14	2.33	2.27	2.23	0.02
620	Farming Operations	16.92	1.42	0.00	0.00	0.00	1.35	0.67	0.15	7.78
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	75.11	36.75	3.67	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	136.92	62.60	9.39	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	28.47	16.92	1.69	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	4.38	2.17	0.31	0.00
660	Fires	0.34	0.29	0.08	3.02	0.00	0.45	0.44	0.41	0.00
670	Waste Burning and Disposal	0.26	0.23	0.10	3.03	0.03	0.36	0.35	0.30	0.03
690	Cooking	2.82	1.12	0.00	0.00	0.00	11.79	11.79	11.79	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.90
	RECLAIM	0.00	0.00	15.05	0.00	6.10	0.00	0.00	0.00	0.00
	Total Miscellaneous Processes	25.42	5.36	26.91	20.14	6.27	261.15	133.96	29.97	34.73
On-Roa	ad Motor Vehicles									
710	Light Duty Passenger (LDA)	28.83	27.04	14.02	279.06	0.66	4.07	4.02	1.45	7.25
722	Light Duty Trucks - 1 (LDT1)	6.35	5.86	3.68	53.55	0.06	0.38	0.37	0.15	0.65
723	Light Duty Trucks - 2 (LDT2)	13.88	12.83	10.23	149.46	0.37	1.94	1.92	0.69	3.52
724	Medium Duty Trucks (MDV)	12.17	11.18	9.86	114.08	0.28	1.21	1.20	0.44	2.10
725	Light Heavy Duty Trucks - 1 (LHDT1)	1.62	1.49	4.80	9.82	0.04	0.59	0.59	0.24	0.54
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.30	0.27	1.40	1.46	0.01	0.18	0.18	0.07	0.19
727	Medium Heavy Duty Trucks (MHDT)	0.89	0.72	10.92	7.73	0.09	0.51	0.51	0.22	1.46
728	Heavy Heavy Duty Trucks (HHDT)	2.07	0.71	29.22	14.24	0.19	1.75	1.74	0.74	3.03
750	Motorcycles (MCY)	7.33	6.94	0.79	22.35	0.00	0.03	0.03	0.01	0.01
775	Buses	2.48	0.21	2.06	28.84	0.01	0.17	0.17	0.07	0.84
780	Motor Gomes (MH)	0.27	0.26	0.56	0.64	0.01	0.04	0.04	0.02	0.03
	Total On-Road Motor Vehicles	76.19	67.51	87.54	681.23	1.72	10.86	10.77	4.09	19.63
Other I	l Mobile Sources									
810	Aircraft	3.52	3.36	17.82	34.27	1.54	0.76	0.74	0.65	0.00
820	Trains	0.83	0.69	16.13	3.91	0.02	0.37	0.37	0.34	0.01
833	Ocean Going Vessels	11.07	9.47	31.12	4.42	2.08	0.70	0.70	0.65	0.03
835	Commercial Harbor Crafts	0.39	0.33	5.77	1.22	0.00	0.25	0.25	0.23	0.00
840	Recreational Boats	19.40	18.10	3.64	66.37	0.01	1.19	1.07	0.81	0.01
850	Off-Road Recreational Vehicles	1.42	1.41	0.03	1.60	0.00	0.01	0.01	0.00	0.00
860	Off-Road Equipment	60.47	56.06	40.65	743.80	0.10	2.27	2.20	1.91	0.07
861	Off-Road Equipment (PERP)	0.63	0.53	5.16	4.72	0.01	0.18	0.18	0.16	0.01
870	Farm Equipment	0.33	0.30	0.61	6.13	0.00	0.04	0.04	0.04	0.00
890	Fuel Storage and Handling	7.17	7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	105.23	97.42	120.95	866.44	3.77	5.77	5.55	4.80	0.13
Natura	l Sources									
910	Biogenic Sources	226.62	221.66	6.30	0.00	0.00	0.00	0.00	0.00	0.00
910	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
920	Wildfires	105.86	87.44	11.53	447.52	3.78	47.38	45.53	38.57	4.48
930	Total Natural Sources Category	332.48	309.09	11.53 17.83	447.52 447.52	3.78 3.78	47.38 47.38	45.53 45.53	38.57 38.57	4.48 6.21
		332.40	303.05	17.03		3.70	47.30	43.33	30.37	0.21
Total S	tationary and Area Sources	1123.26	223.87	47.55	103.50	9.68	289.99	153.43	43.66	59.28
	Dn-Road Vehicles	76.19	67.51	87.54	681.23	1.72	10.86	10.77	4.09	19.63
	Other Mobile	105.23	97.42	120.95	866.44	3.77	5.77	5.55	4.80	0.13
	Anthropogenic	1304.68	388.80	256.04	1651.17	15.17	306.62	169.75	52.55	79.04
	latural Sources	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21
Grand		1637.16	697.89	273.87	2098.69	18.95	354.00	215.28	91.12	85.25

# TABLE I-10 2026 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN SOUTH COAST AIR BASIN (TONS/DAY)

	SUMMER PLANNING EMISSIONS BY								•	-
MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3
Fuel Co	mbustion									
10	Electric Utilities	2.79	0.32	3.14	4.21	0.23	0.55	0.55	0.55	0.71
20	Cogeneration	0.04	0.01	0.02	0.12	0.00	0.02	0.01	0.01	0.18
30	Oil and Gas Production (Combustion)	1.36	0.16	0.87	0.72	0.01	0.11	0.11	0.11	0.23
40	Petroleum Refining (Combustion)	6.57	1.38	5.34	5.18	3.15	1.81	1.80	1.80	1.54
50	Manufacturing and Industrial	4.32	0.97	8.39	47.62	2.20	1.48	1.40	1.37	2.32
52	Food and Agricultural Processing	0.10	0.05	0.42	0.54	0.01	0.06	0.06	0.06	0.06
60	Service and Commercial	5.05	1.98	9.84	18.65	0.82	1.06	1.06	1.06	2.37
99	Other (Fuel Combustion)	0.82	0.67	2.66	1.26	0.02	0.53	0.50	0.47	0.30
	Total Fuel Combustion	21.05	5.54	30.68	78.30	6.45	5.62	5.49	5.41	7.72
Waste	Disposal									
110	Sewage Treatment	0.40	0.29	0.00	0.01	0.00	0.02	0.00	0.00	0.22
120	Landfills	659.27	9.15	0.40	0.42	0.39	0.23	0.22	0.22	4.18
130	Incineration	0.22	0.04	1.21	0.28	0.08	0.13	0.06	0.05	0.24
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	98.63	7.93	0.01	0.01	0.00	0.00	0.00	0.00	2.10
	Total Waste Disposal	758.53	17.41	1.63	0.71	0.47	0.37	0.29	0.28	6.73
Cleanin	g and Surface Coatings									
210	Laundering	3.62	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	70.28	13.65	0.00	0.00	0.00	0.03	0.03	0.03	0.01
230	Coatings and Related Processes	20.61	20.17	0.00	0.01	0.00	1.78	1.71	1.64	0.14
240	Printing	0.85	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.05
250	Adhesives and Sealants	5.29	4.67	0.00	0.00	0.00	0.04	0.04	0.04	0.00
299	Other (Cleaning and Surface Coatings)	0.66	0.66	0.04	0.12	0.01	0.01	0.01	0.01	0.00
	Total Cleaning and Surface Coatings	101.31	40.17	0.04	0.12	0.01	1.85	1.78	1.71	0.20
Petrole	um Production and Marketing									
310	Oil and Gas Production	7.32	3.35	0.01	0.03	0.09	0.04	0.03	0.02	0.00
320	Petroleum Refining	6.37	4.44	0.68	2.40	1.43	1.87	1.25	0.89	0.07
330	Petroleum Marketing	52.01	12.06	0.02	0.20	0.00	0.01	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.04	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and Marketing	65.74	19.89	0.72	2.63	1.52	1.92	1.28	0.91	0.07
Industr	ial Processes									
410	Chemical	4.86	4.69	0.07	0.12	0.09	0.54	0.46	0.44	0.01
420	Food and Agriculture	0.59	0.56	0.03	0.01	0.01	0.32	0.15	0.06	0.00
430	Mineral Processes	0.48	0.43	0.48	0.38	0.22	9.68	4.00	1.16	0.07
440	Metal Processes	0.14	0.12	0.32	0.30	0.23	0.46	0.36	0.28	0.00
450	Wood and Paper	0.25	0.25	0.00	0.00	0.00	7.43	5.20	3.12	0.01
460	Glass and Related Products	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
470	Electronics	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.00	0.00
499	Other (Industrial Processes)	5.84	5.22	0.03	0.01	0.00	1.21	0.83	0.54	8.59
	Total Industrial Processes	12.18	11.29	0.94	0.83	0.55	19.63	11.01	5.60	8.68
Solvent	Evaporation									
510	Consumer Products	146.66	116.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	11.53	11.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	1.15	1.15	0.00	0.00	0.00	0.00	0.00	0.00	1.18
540	Asphalt Paving/Roofing	1.40	1.30	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Solvent Evaporation	160.74	130.25	0.00	0.00	0.00	0.03	0.03	0.03	1.18

			(Co	ontinued)						
MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3
Miscella	aneous Processes									
610	Residential Fuel Combustion	5.00	2.28	10.97	13.81	0.14	2.28	2.22	2.18	0.02
620	Farming Operations	16.63	1.39	0.00	0.00	0.00	1.34	0.66	0.15	7.75
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	77.18	37.76	3.77	0.00
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	139.27	63.67	9.55	0.00
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	28.46	16.92	1.69	0.00
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	4.27	2.12	0.30	0.00
660	Fires	0.34	0.29	0.08	3.02	0.00	0.45	0.44	0.41	0.00
670	Waste Burning and Disposal	0.26	0.22	0.10	3.03	0.03	0.36	0.35	0.30	0.03
690	Cooking	2.87	1.14	0.00	0.00	0.00	12.03	12.03	12.03	0.00
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.40
	Total Miscellaneous Processes	25.10	5.32	11.15	19.86	0.17	265.64	136.17	30.40	35.20
	d Motor Vehicles									
710	Light Duty Passenger (LDA)	23.99	22.70	10.76	225.23	0.59	3.88	3.84	1.35	7.37
722	Light Duty Trucks - 1 (LDT1)	4.78	4.44	2.64	39.61	0.06	0.34	0.34	0.13	0.63
723	Light Duty Trucks - 2 (LDT2)	12.26	11.43	8.05	129.39	0.36	2.00	1.99	0.71	3.89
724	Medium Duty Trucks (MDV)	10.01	9.31	6.95	90.36	0.26	1.21	1.20	0.43	2.24
725	Light Heavy Duty Trucks - 1 (LHDT1)	1.24	1.15	3.35	8.10	0.03	0.55	0.55	0.22	0.56
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.24	0.22	1.01	1.20	0.01	0.17	0.17	0.07	0.21
727	Medium Heavy Duty Trucks (MHDT)	0.73	0.58	7.94	6.22	0.09	0.49	0.49	0.19	1.55
728	Heavy Heavy Duty Trucks (HHDT)	2.04	0.75	17.73	14.71	0.19	1.74	1.74	0.67	3.25
750	Motorcycles (MCY)	7.29	6.90	0.75	21.43	0.00	0.03	0.03	0.01	0.01
775	Buses	2.65	0.21	1.65	29.57	0.01	0.16	0.16	0.06	0.83
780	Motor Gomes (MH)	0.21	0.20	0.48	0.35	0.01	0.04	0.04	0.02	0.03
	Total On-Road Motor Vehicles	65.44	57.87	61.32	566.18	1.61	10.62	10.55	3.86	20.58
Other N	1obile Sources									
810	Aircraft	3.72	3.56	20.71	35.98	1.72	0.79	0.76	0.68	0.00
820	Trains	0.83	0.70	16.69	4.13	0.02	0.37	0.37	0.34	0.01
833	Ocean Going Vessels	11.21	9.60	31.43	4.57	2.22	0.73	0.73	0.67	0.03
835	Commercial Harbor Craft	0.39	0.33	5.79	1.21	0.00	0.25	0.25	0.23	0.00
840	Recreational Boats	17.15	16.01	3.54	66.66	0.01	1.05	0.95	0.72	0.01
850	Off-Road Recreational Vehicles	1.28	1.27	0.04	1.70	0.00	0.01	0.01	0.00	0.00
860	Off-Road Equipment	50.48	46.74	34.20	683.25	0.10	1.91	1.85	1.60	0.08
861	Off-Road Equipment (PERP)	0.59	0.49	4.16	5.00	0.02	0.13	0.13	0.12	0.01
870	Farm Equipment	0.27	0.24	0.52	5.22	0.00	0.04	0.04	0.03	0.00
890	Fuel Storage and Handling	6.64	6.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Other Mobile Sources	92.57	85.58	117.07	807.71	4.08	5.27	5.07	4.39	0.15
	Sources					_		_		
910	Biogenic Sources	226.62	221.66	6.30	0.00	0.00	0.00	0.00	0.00	0.00
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73
930	Wildfires	105.86	87.44	11.53	447.52	3.78	47.38	45.53	38.57	4.48
	Total Natural Sources Category	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21
Total St	ationary and Area Sources	1144.64	229.87	45.15	102.45	9.17	295.07	156.05	44.35	59.79
	n-Road Vehicles	65.44	57.87	61.32	566.18	1.61	10.62	10.55	3.86	20.58
	ther Mobile	92.57	85.58	117.07	807.71	4.08	5.27	5.07	4.39	0.15
	nthropogenic	1302.65	373.32	223.55	1476.35	14.87	310.96	171.67	52.60	80.51
	atural Sources	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21
Grand 1		1635.13	682.42	241.37	1923.87	18.65	358.33	217.20	91.16	86.72
2. and 1			002172	10,		10100	220.00		5 -1120	5517 E

# TABLE I-11 2029 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN SOUTH COAST AIR BASIN (TONS/DAY)

MSC	9 SUMINER PLANNING EMISSIO	TOG	VOC			sox	PM	PM10	PM2.5	NH3	
	ombustion	TUG	VUC	NOX	СО	307	PIVI	PIVI10	PIVIZ.5	NIIS	
Fuer C	Electric Utilities	2.47	0.28	2.74	2.00	0.22	0.49	0.49	0.49	0.62	
20		0.04	0.28	0.02	3.80 0.12	0.22	0.49	0.49	0.49	0.62	
	Cogeneration Oil And Gas Production (Combustion)		0.01		0.12	0.00				0.18	
30 40		1.48 6.57		0.93 4.51	5.18	3.15	0.11	0.11	0.11	1.54	
40 50	Petroleum Refining (Combustion) Manufacturing and Industrial	4.22	1.38 0.96	4.51 8.24	46.16	2.20	1.81	1.80	1.80	2.27	
50	Food and Agricultural Processing	4.22 0.10	0.96	0.43	46.16 0.54	0.01	0.06	0.06	0.06	0.06	
52 60											
99	Service and Commercial Other (Fuel Combustion)	5.09 0.84	2.00 0.68	9.91 2.66	18.11 1.27	0.84	1.05 0.54	1.05 0.51	1.04 0.48	2.26 0.30	
99		0.84 20.81	5.54						5.32	0.30 7.48	
	Total Fuel Combustion	20.81	5.54	29.44	75.95	6.45	5.53	5.41	5.32	7.48	
Waste	Disposal										
110	Sewage Treatment	0.41	0.29	0.00	0.01	0.00	0.02	0.00	0.00	0.22	
120	Landfills	672.01	9.32	0.41	0.42	0.40	0.23	0.22	0.22	4.24	
130	Incineration	0.23	0.04	1.23	0.28	0.08	0.13	0.06	0.05	0.24	
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
199	Other (Waste Disposal)	99.71	8.02	0.01	0.01	0.00	0.00	0.00	0.00	2.20	
	Total Waste Disposal	772.36	17.68	1.65	0.72	0.48	0.38	0.29	0.28	6.91	
Cleani	ng and Surface Coatings										
210	Laundering	3.68	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	Degreasing	70.81	13.79	0.00	0.00	0.00	0.03	0.03	0.03	0.01	
230	Coatings and Related Processes	21.03	20.58	0.00	0.01	0.00	1.81	1.74	1.67	0.14	
240	Printing	0.87	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.05	
250	Adhesives and Sealants	5.33	4.71	0.00	0.00	0.00	0.04	0.04	0.04	0.00	
299	Other (Cleaning and Surface Coatings)	0.67	0.66	0.04	0.12	0.01	0.01	0.01	0.01	0.00	
	Total Cleaning and Surface Coatings	102.40	40.79	0.04	0.12	0.01	1.89	1.81	1.74	0.20	
	eum Production and Marketing										
310	Oil and Gas Production	8.24	3.77	0.01	0.03	0.10	0.04	0.03	0.02	0.00	
320	Petroleum Refining	6.37	4.44	0.61	2.40	1.43	1.87	1.25	0.89	0.07	
330	Petroleum Marketing	49.71	11.61	0.02	0.19	0.00	0.00	0.00	0.00	0.00	
399	Other (Petroleum Production and Marketing)	0.05	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00	
	Total Petroleum Production and Marketing	64.36	19.86	0.65	2.62	1.53	1.92	1.28	0.91	0.07	
Indust	rial Processes										
410	Chemical	4.89	4.72	0.07	0.12	0.09	0.54	0.47	0.44	0.01	
420	Food and Agriculture	0.60	0.57	0.03	0.01	0.01	0.32	0.15	0.06	0.00	
430	Mineral Processes	0.49	0.44	0.48	0.39	0.22	9.72	4.03	1.18	0.07	
440	Metal Processes	0.14	0.12	0.33	0.32	0.24	0.48	0.38	0.29	0.00	
450	Wood and Paper	0.25	0.25	0.00	0.00	0.00	7.70	5.39	3.23	0.01	
460	Glass and Related products	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
470	Electronics	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.00	0.00	
499	Other (Industrial Processes)	5.89	5.26	0.03	0.01	0.00	1.22	0.84	0.54	8.59	
	Total Industrial Processes	12.29	11.40	0.95	0.85	0.56	19.99	11.25	5.75	8.68	
			-								
Solven	t Evaporation										
510	Consumer Products	151.33	120.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
520	Architectural Coatings and Related Solvent	11.78	11.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
530	Pesticides/Fertilizers	1.16	1.16	0.00	0.00	0.00	0.00	0.00	0.00	1.17	
540	Asphalt Paving/Roofing	1.44	1.33	0.00	0.00	0.00	0.03	0.03	0.03	0.00	
	Total Solvent Evaporation	165.72	134.38	0.00	0.00	0.00	0.03	0.03	0.03	1.17	

(Continued)											
MSC	DESC	TOG	VOC	NOX	СО	SOX	PM	PM10	PM2.5	NH3	
Miscella	neous Processes										
610	Residential Fuel Combustion	4.93	2.25	10.28	13.53	0.13	2.23	2.16	2.13	0.02	
620	Farming Operations	16.34	1.36	0.00	0.00	0.00	1.33	0.65	0.14	7.70	
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	78.78	38.55	3.85	0.00	
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	141.29	64.60	9.69	0.00	
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	28.46	16.91	1.69	0.00	
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	4.17	2.07	0.30	0.00	
660	Fires	0.34	0.29	0.08	3.02	0.00	0.45	0.44	0.41	0.00	
670	Waste Burning and Disposal	0.26	0.22	0.10	3.03	0.03	0.36	0.35	0.30	0.03	
690	Cooking	2.92	1.16	0.00	0.00	0.00	12.23	12.23	12.23	0.00	
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.88	
	Total Miscellaneous Processes	24.79	5.28	10.46	19.58	0.16	269.29	137.97	30.75	35.63	
On-Road	Motor Vehicles										
710	Light Duty Passenger (LDA)	20.72	19.72	8.91	191.61	0.54	3.71	3.68	1.27	7.47	
722	Light Duty Trucks - 1 (LDT1)	3.77	3.53	1.90	29.99	0.05	0.32	0.32	0.12	0.61	
723	Light Duty Trucks - 2 (LDT2)	10.98	10.28	6.83	118.84	0.35	2.05	2.03	0.71	4.16	
724	Medium Duty Trucks (MDV)	8.39	7.86	5.24	77.22	0.24	1.20	1.19	0.42	2.34	
725	Light Heavy Duty Trucks - 1 (LHDT1)	0.95	0.88	2.38	6.85	0.03	0.52	0.52	0.20	0.55	
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.19	0.18	0.76	1.02	0.01	0.16	0.16	0.07	0.21	
727	Medium Heavy Duty Trucks (MHDT)	0.62	0.47	6.04	5.16	0.09	0.49	0.49	0.18	1.57	
728	Heavy Heavy Duty Trucks (HHDT)	1.95	0.76	14.54	14.68	0.19	1.83	1.83	0.70	3.38	
750	Motorcycles (MCY)	7.27	6.89	0.73	20.80	0.00	0.03	0.03	0.01	0.01	
775	Buses	2.76	0.21	1.26	28.61	0.01	0.16	0.16	0.06	0.76	
780	Motor Gomes (MH)	0.15	0.15	0.42	0.17	0.01	0.03	0.03	0.02	0.03	
	Total On-Road Motor Vehicles	57.76	50.92	49.01	494.95	1.51	10.51	10.44	3.74	21.10	
	obile Sources										
810	Aircraft	3.93	3.76	23.59	37.72	1.89	0.81	0.79	0.71	0.00	
820	Trains	0.86	0.72	17.54	4.37	0.03	0.38	0.38	0.35	0.01	
833	Ocean Going Vessels	11.33	9.70	32.22	4.76	2.31	0.76	0.76	0.70	0.03	
835	Commercial Harbor Craft	0.38	0.32	5.73	1.19	0.00	0.24	0.24	0.23	0.00	
840	Recreational Boats	15.30	14.29	3.46	67.51	0.01	0.95	0.85	0.64	0.01	
850	Off-Road Recreational Vehicles	1.10	1.08	0.04	1.74	0.00	0.01	0.01	0.00	0.00	
860	Off-Road Equipment	38.76	35.86	28.81	586.91	0.09	1.62	1.56	1.35	0.06	
861	Off-Road Equipment (PERP)	0.57	0.48	3.58	5.30	0.02	0.10	0.10	0.09	0.01	
870	Farm Equipment	0.22	0.20	0.44	4.25	0.00	0.03	0.03	0.03	0.00	
890	Fuel Storage and Handling	6.27	6.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Total Other Mobile Sources	78.72	72.69	115.42	713.76	4.34	4.90	4.72	4.10	0.13	
	-										
Natural Sources											
910	Biogenic Sources	226.62	221.66	6.3	0.00	0.00	0.00	0.00	0.00	0.00	
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	
930	Wildfires	105.86	87.44	11.53	447.52	3.78	47.38	45.53	38.57	4.48	
	Total Natural Sources Category	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21	
Table		1162 72	224.02	12.10	00.04	0.20	200.02	450.04	44.70	60.45	
	ationary and Area Sources	1162.72	234.93	43.18	99.84	9.20	299.03	158.04	44.79	60.15	
	n-Road Vehicles	57.76	50.92	49.01	494.95	1.51	10.51	10.44	3.74	21.10	
	her Mobile	78.72	72.69	115.42	713.76	4.34	4.90	4.72	4.10	0.13	
	Ithropogenic	1299.20	358.54	207.61	1308.55	15.06	314.43	173.20	52.63	81.39	
	tural Sources	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21	
Grand T	οται	1631.68	667.64	225.44	1756.08	18.84	361.81	218.73	91.19	87.60	

TABLE I-12
2031 SUMMER PLANNING EMISSIONS BY SOURCE CATEGORY IN SOUTH COAST AIR BASIN (TONS/DAY)

MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3
	ombustion		VOC	нол		307	1 101		11012.5	1113
10	Electric Utilities	2.34	0.27	2.59	3.64	0.21	0.46	0.46	0.46	0.58
20	Cogeneration	0.04	0.27	0.02	0.12	0.00	0.02	0.40	0.40	0.30
30	Oil And Gas Production (Combustion)	1.52	0.18	0.95	0.79	0.00	0.11	0.11	0.01	0.25
40	Petroleum Refining (Combustion)	6.57	1.38	4.19	5.18	3.15	1.81	1.80	1.80	1.54
50	Manufacturing and Industrial	4.16	0.95	8.14	45.30	2.20	1.44	1.36	1.32	2.24
52	Food and Agricultural Processing	0.10	0.05	0.42	0.54	0.01	0.06	0.06	0.06	0.06
60	Service and Commercial	5.12	2.01	9.94	17.83	0.85	1.04	1.04	1.04	2.20
99	Other (Fuel Combustion)	0.84	0.69	2.66	1.27	0.02	0.54	0.51	0.48	0.30
	Total Fuel Combustion	20.68	5.53	28.91	74.67	6.45	5.49	5.36	5.28	7.36
Waste	Disposal									
110	Sewage Treatment	0.42	0.30	0.00	0.01	0.00	0.02	0.00	0.00	0.22
120	Landfills	679.73	9.43	0.41	0.42	0.40	0.23	0.23	0.22	4.29
130	Incineration	0.23	0.04	1.23	0.29	0.08	0.13	0.06	0.05	0.24
140	Soil Remediation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
199	Other (Waste Disposal)	100.24	8.06	0.01	0.01	0.00	0.00	0.00	0.00	2.25
	Total Waste Disposal	780.62	17.83	1.66	0.72	0.48	0.38	0.30	0.28	7.00
Cleani	ng and Surface Coatings									
210	Laundering	3.73	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	Degreasing	70.48	13.74	0.00	0.00	0.00	0.03	0.03	0.03	0.01
230	Coatings and Related Processes	21.15	20.69	0.00	0.01	0.00	1.81	1.74	1.67	0.14
240	Printing	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.05
250	Adhesives and Sealants	5.31	4.69	0.00	0.00	0.00	0.04	0.04	0.04	0.00
299	Other (Cleaning and Surface Coatings)	0.67	0.66	0.04	0.11	0.01	0.01	0.01	0.01	0.00
	Total Cleaning and Surface Coatings	102.21	40.84	0.04	0.12	0.01	1.89	1.81	1.75	0.20
Petrol	eum Production and Marketing									
310	Oil and Gas Production	8.56	3.92	0.01	0.03	0.10	0.04	0.03	0.02	0.00
320	Petroleum Refining	6.37	4.44	0.58	2.40	1.43	1.87	1.25	0.89	0.07
330	Petroleum Marketing	48.73	11.42	0.02	0.18	0.00	0.00	0.00	0.00	0.00
399	Other (Petroleum Production and Marketing)	0.05	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00
	Total Petroleum Production and Marketing	63.70	19.82	0.62	2.62	1.53	1.92	1.28	0.91	0.07
	rial Processes									
410	Chemical	4.87	4.69	0.07	0.12	0.09	0.54	0.47	0.44	0.01
420	Food and Agriculture	0.60	0.58	0.03	0.01	0.01	0.32	0.15	0.06	0.00
430	Mineral Processes	0.50	0.45	0.48	0.39	0.22	9.73	4.03	1.18	0.07
440	Metal Processes	0.14	0.12	0.33	0.33	0.25	0.48	0.38	0.29	0.00
450	Wood and Paper	0.25	0.25	0.00	0.00	0.00	7.71	5.40	3.24	0.01
460	Glass and related Products	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
470	Electronics	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.00	0.00
499	Other (Industrial Processes)	5.92	5.29	0.03	0.01	0.00	1.22	0.84	0.54	8.59
	Total Industrial Processes	12.30	11.41	0.95	0.86	0.57	20.01	11.27	5.76	8.68
Colur	t Eveneration									
	t Evaporation	455.62	122.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
510	Consumer Products	155.63	123.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00
520	Architectural Coatings and Related Solvent	11.96	11.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
530	Pesticides/Fertilizers	1.17	1.17	0.00	0.00	0.00	0.00	0.00	0.00	1.16
540	Asphalt Paving/Roofing	1.46	1.35	0.00	0.00	0.00	0.03	0.03	0.03	0.00
	Total Solvent Evaporation	170.21	138.14	0.00	0.00	0.00	0.03	0.03	0.03	1.16

(Continued)											
MSC	DESC	TOG	VOC	NOX	CO	SOX	PM	PM10	PM2.5	NH3	
Miscella	neous Processes										
610	Residential Fuel Combustion	4.90	2.24	9.96	13.43	0.13	2.21	2.14	2.11	0.02	
620	Farming Operations	16.17	1.34	0.00	0.00	0.00	1.32	0.65	0.14	7.66	
630	Construction and Demolition	0.00	0.00	0.00	0.00	0.00	79.86	39.07	3.90	0.00	
640	Paved Road Dust	0.00	0.00	0.00	0.00	0.00	141.21	64.56	9.69	0.00	
645	Unpaved Road Dust	0.00	0.00	0.00	0.00	0.00	28.46	16.91	1.69	0.00	
650	Fugitive Windblown Dust	0.00	0.00	0.00	0.00	0.00	4.11	2.05	0.29	0.00	
660	Fires	0.34	0.29	0.08	3.02	0.00	0.45	0.44	0.41	0.00	
670	Waste Burning and Disposal	0.26	0.22	0.10	3.03	0.03	0.36	0.35	0.30	0.03	
690	Cooking	2.95	1.17	0.00	0.00	0.00	12.37	12.37	12.37	0.00	
699	Other (Miscellaneous Processes)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.18	
	Total Miscellaneous Processes	24.62	5.26	10.14	19.48	0.16	270.34	138.54	30.91	35.89	
	Motor Vehicles										
710	Light Duty Passenger (LDA)	18.98	18.11	8.13	176.70	0.51	3.63	3.61	1.22	7.54	
722	Light Duty Trucks - 1 (LDT1)	3.19	3.00	1.49	24.97	0.05	0.31	0.30	0.11	0.60	
723	Light Duty Trucks - 2 (LDT2)	10.42	9.78	6.33	114.94	0.34	2.08	2.06	0.71	4.31	
724	Medium Duty Trucks (MDV)	7.63	7.17	4.57	72.33	0.24	1.21	1.20	0.41	2.41	
725	Light Heavy Duty Trucks - 1 (LHDT1)	0.78	0.73	1.91	5.98	0.03	0.50	0.50	0.19	0.53	
726	Light Heavy Duty Trucks - 2 (LHDT2)	0.17	0.16	0.64	0.93	0.01	0.16	0.16	0.06	0.20	
727	Medium Heavy Duty Trucks (MHDT)	0.56	0.42	5.04	4.57	0.08	0.48	0.48	0.18	1.52	
728	Heavy Heavy Duty Trucks (HHDT)	1.86	0.76	13.21	14.40	0.19	1.89	1.89	0.72	3.43	
750	Motorcycles (MCY)	7.27	6.88	0.72	20.58	0.00	0.03	0.03	0.01	0.01	
775	Buses	2.42	0.19	0.95	22.69	0.01	0.15	0.15	0.05	0.60	
780	Motor Gomes (MH)	0.12	0.12	0.39	0.12	0.01	0.03	0.03	0.02	0.04	
	Total On-Road Motor Vehicles	53.39	47.31	43.38	458.21	1.47	10.46	10.40	3.68	21.19	
Other M	obile Sources										
810	Aircraft	4.06	3.90	25.51	38.86	2.01	0.83	0.81	0.72	0.00	
820	Trains	0.85	0.72	17.78	4.54	0.03	0.38	0.38	0.35	0.00	
833	Ocean Going Vessels	11.41	9.76	32.84	4.90	2.37	0.78	0.78	0.72	0.01	
835	Commercial Harbor Craft	0.37	0.31	5.67	1.17	0.00	0.24	0.24	0.23	0.00	
840	Recreational Boats	14.19	13.26	3.43	68.20	0.01	0.88	0.80	0.60	0.01	
850	Off-Road Recreational Vehicles	0.99	0.98	0.04	1.78	0.00	0.01	0.01	0.00	0.00	
860	Off-Road Equipment	33.42	30.82	26.33	510.68	0.09	1.50	1.45	1.25	0.07	
861	Off-Road Equipment (PERP)	0.59	0.49	3.51	5.52	0.02	0.09	0.09	0.08	0.02	
870	Farm Equipment	0.19	0.17	0.39	3.67	0.00	0.03	0.03	0.03	0.00	
890	Fuel Storage and Handling	6.12	6.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Total Other Mobile Sources	72.20	66.53	115.51	639.31	4.52	4.74	4.57	3.97	0.14	
Natural	Sources										
910	Biogenic Sources	226.62	221.66	6.3	0.00	0.00	0.00	0.00	0.00	0.00	
920	Geogenic Sources	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	
930	Wildfires	105.86	87.44	11.53	447.52	3.78	47.38	45.53	38.57	4.48	
	Total Natural Sources Category	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21	
T.1.10		4474.00	222.02	40.00		6.24	202.0-	450.50	44.00	60.00	
	ationary and Area Sources	1174.36	238.83	42.32	98.47	9.21	300.07	158.59	44.92	60.38	
	-Road Vehicles	53.39	47.31	43.38	458.21	1.47	10.46	10.40	3.68	21.19	
	her Mobile	72.20	66.53	115.51	639.31	4.52	4.74	4.57	3.97	0.14	
	thropogenic	1299.94	352.67	201.20	1195.99	15.19	315.26	173.56	52.57	81.71	
	tural Sources	332.48	309.09	17.83	447.52	3.78	47.38	45.53	38.57	6.21	
Grand T	οται	1632.42	661.77	219.03	1643.51	18.98	362.64	219.09	91.14	87.92	

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

APPENDIX II: SCAG'S TRANSPORTATION CONTROL MEASURE REASONABLY AVAILABLE CONTROL MEASURES ANALYSIS

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### Background

The Coachella Valley Planning Area is defined as the desert portion of Riverside County in the Salton Sea Air Basin (SSAB) and is part of the South Coast Air Quality Management District (South Coast AQMD) jurisdiction. The Coachella Valley is the most populated area in this desert region, which encompasses several communities, including Palm Springs, Desert Hot Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella, Thermal, and Mecca.

Ozone pollution has improved in Coachella Valley over the last several decades. Due to South Coast AQMD's stationary and mobile source emission reduction programs both in the South Coast Air Basin and in Coachella Valley, ground level ozone in the Coachella Valley has continued to decrease. However, the Coachella Valley still experiences high levels of ozone and fails to meet either the 2008 (75 ppb) or the 2015 (70 ppb) 8-hour federal and State ozone standards.<sup>1</sup> Most of the emissions forming ozone in the Coachella Valley comes from the South Coast Air Basin. Figure VI-A-1 illustrates the processes influencing ozone concentrations in the Coachella Valley. NOx is generated from combustion processes whereas VOCs are emitted from a wide variety of sources such as consumer products, mobile sources, and vegetation. NOx emissions from passenger cars account for about 6% of the Coachella Valley's total NOx emissions in 2031 business-as-usual condition (baseline). Wildfires generate both NOx and VOCs. However, the chemical reactions that form ozone are highly complex and depend not only on NOx and VOC levels, but also on the ratio of VOC to NOx concentrations, temperature, the amount of sunlight, and other meteorological conditions.

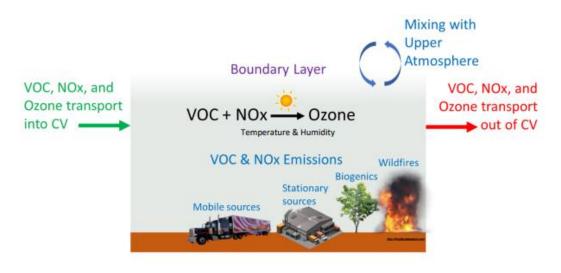


FIGURE II-1 SCHEMATIC OF PROCESSES INFLUENCING OZONE CONCENTRATIONS IN THE COACHELLA VALLEY

<sup>&</sup>lt;sup>1</sup> The Coachella Valley officially attained the revoked 1-hour ozone NAAQS (120 ppb) in 2015.

Ozone is formed photochemically from NOx and VOCs and transported from the Basin to the Coachella Valley. The Basin's prevailing sea breeze causes polluted air to be transported inland. As the air is being transported inland, ozone is formed, with high concentrations occurring in the inland valleys of the Basin, extending from eastern San Fernando Valley through the San Gabriel Valley into the Riverside-San Bernardino area and the adjacent mountains. Coachella Valley's ozone depends on the ozone levels in the Basin and local emissions have limited impact on the Coachella Valley's ozone levels. The photochemical modeling system used in the attainment demonstration indicates that even if all man-made emissions from the Coachella Valley were removed, Coachella Valley is not going to attain the ozone standard without emission reductions placed in the South Coast Air Basin.

### Transportation Control Measures (TCMs)

Transportation Control Measures (TCMs) are strategies that reduce motor vehicle emissions by reducing vehicle trips, vehicle use, vehicle miles traveled (VMT), vehicle idling, and traffic congestion. TCMs are either one of the types listed in CAA section 108, or any other measures for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Pursuant to U.S. EPA's Transportation Conformity Regulations, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs.

In the Coachella Valley, the following three categories of TCM projects and programs are developed by the Riverside County Transportation Commission (RCTC) and included in SCAG's 2020 Connect SoCal and 2023 Federal Improvement Program (FTIP):

- 1. Transit and non-motorized modes;
- 2. High Occupancy Vehicle (HOV) Lanes their pricing alternatives; and
- 3. Information-based Transportation Strategies.

### TCM Reasonably Available Control Measure Analysis

The federal CAA requires a Reasonably Available Control Measure (RACM) analysis for TCMs during the AQMP development and must be included as part of the overall control strategy in the ozone SIP to ensure that all potential control measures are evaluated for implementation and that justification is provided for those measures that are not implemented. For TCMs to be RACM, TCMs must be both technologically and economically feasible and must advance the nonattainment area's projected attainment date of the NAAQS by at least one year.

Through an extensive project development and selection process, RCTC is the agency charged with recommending transportation projects including TCM projects within the Riverside County including the Coachella Valley for funding under SCAG's long-range Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS is updated every four years, and 2020 Connect SoCal is the latest federally approved RTP/SCS.

In addition, the TCM projects in the Coachella Valley are programmed and updated through and as part of SCAG's short-term FTIP development process. The FTIP is updated every two years, and the 2023 FTIP is the latest federally approved FTIP.

Therefore, the TCM RACM process relies predominantly on the respective continuous regional transportation planning and programming processes of updating and adding TCMs in the Coachella Valley by RCTC and SCAG.

For illustrative purpose, Attachment VI-A-4A is a list of completed 2023 FTIP TCM projects in the Coachella Valley and Attachment VI-A-4B is a list of TCM projects currently being implemented in the Coachella Valley.

Coachella Valley is under the South Coast AQMD's jurisdiction and thus subject to the AQMD's regulations and control measures. Coachella Valley is also within the jurisdiction of RCTC and SCAG and, as a result, TCM projects are being proposed, implemented, and updated through and as part of the continuous regional transportation planning and programming processes. Therefore, in terms of assembly and review of candidate TCM, both the process and the conclusion of determining the TCM reasonably available control measures and the reasoned justification as documented in the 2022 AQMP Appendix IV-C<sup>2</sup> for the South Coast Air Basin generally apply to the Coachella Valley.

CAA Section 172(c)(1) requires SIPs to provide for the implementation of all TCM RACM as "expeditiously as practicable." U.S. EPA and related court decisions have maintained that TCMs considered RACM must be measures that 1) advance the attainment date, typically by at least one year and 2) are technologically and economically feasible. Measures must pass both the advance attainment and technical/economic feasibility tests to be deemed RACM.

Based on the comprehensive review of TCMs in other Serious or worse ozone nonattainment areas under the 2008 8-hour ozone standard as documented in the 2022 AQMP Appendix IV-C for the South Coast Air Basin and the updated review of TCMs in the other Serious or worse ozone nonattainment areas under the 2015 8-hour ozone standard and developed since the 2022 AQMP listed in Table 1 on the next page, it is determined that the TCMs being implemented in the Coachella Valley are inclusive of all TCM RACMs. None of the candidate measures reviewed that have not been implemented meet the criteria for RACM implementation.

SCAG and RCTC have established a comprehensive, formal process for identifying, evaluating, and selecting TCMs. The regular RTP, FTIP, and AQMP/SIP public update processes ensure that TCM identification and implementation is a routine consideration that helps SCAG and the South Coast AQMD in the effort to demonstrate attainment of applicable NAAQS in Coachella Valley.

<sup>&</sup>lt;sup>2</sup> South Coast AQMD, 2022 Air Quality Management Plan. <u>https://www.aqmd.gov/home/air-quality/air-quality-man-agement-plans/air-quality-mgt-plan</u>

#### SERIOUS OR WORSE OZONE NONATTAINMENT AREA SIPS UNDER 2015 8-HOUR OZONE STANDARD AND DEVELOPED SINCE SOUTH COAST AQMD'S 2022 AQMP

Nonattainment Area	Designation	Applicable SIP
San Joaquin Valley, California	Extreme	2022 Plan for the 2015 Ozone Standard <sup>3</sup>
Western Mojave Desert	Severe 15	MDAQMD Federal 70 PPB Ozone Attainment Plan <sup>4</sup> AVAQMD Federal 70 PPB Ozone Attainment Plan <sup>5</sup>
Eastern Kern	Serious	2023 Ozone Attainment Plan for the 2008 & 2015 8-hour Ozone National Ambient Air Quality Standards (NAAQS) <sup>6</sup>
Western Nevada County	Serious	Ozone Attainment Plan for Western Nevada County – State Implementation Plan for the 2015 70 ppb Ozone Standard <sup>7</sup>
Sacramento Region	Serious	Sacramento Region 2015 NAAQS 8-hour Ozone Attainment & Reasonable Further Progress Plan <sup>8</sup>
Ventura County	Serious	2022 Ventura County Air Quality Management Plan <sup>9</sup>

<sup>6</sup> Eastern Kern APCD, 2023 Ozone Attainment Plan for the 2008 & 2015, 8-Hour Ozone National Ambient Air Quality Standards (NAAQS). <u>http://www.kernair.org/Documents/Rules/2023%20Attain-</u> ment%20Plan/EKAPCD 2023 Ozone Plan Draft 3-31-23.pdf

<sup>7</sup> Northern Sierra AQMD, 2023 Ozone Attainment Plan for Western Nevada County. <u>https://ww2.arb.ca.gov/re-sources/documents/2023-ozone-attainment-plan-western-nevada-county</u>

<sup>&</sup>lt;sup>3</sup> San Joaquin Valley APCD, 2022 Ozone Plan for the San Joaquin Valley. <u>https://ww2.valleyair.org/rules-and-plan-ning/air-quality-plans/ozone-plans/2022-ozone-plan-for-the-san-joaquin-valley/</u>

<sup>&</sup>lt;sup>4</sup> Mojave Desert AQMD, Federal 70 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area), January 2023. <u>https://www.mdaqmd.ca.gov/home/showpublisheddocument/9589/638084392297570000</u>

<sup>&</sup>lt;sup>5</sup> Antelope Valley AQMD, Federal 70 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area), January 2023. <u>https://avaqmd.ca.gov/files/020b4aec1/70+ppb+Ozone+Plan+Final+Draft+AV+01.04.2023.pdf</u>

<sup>&</sup>lt;sup>8</sup> Sacramento Metropolitan AQMD, Sacramento Regional 2015 NAAQS 8-Hour Ozone Attainment & Reasonable Further Progress Plan, October 2023. <u>https://www.airquality.org/ProgramCoordination/Documents/Sacramento%20Re-</u> <u>gional%202015%20NAAQS%208%20Hour%20Ozone%20Attainment%20and%20Reasonable%20Further%20Progress%2</u> OPlan.pdf

<sup>&</sup>lt;sup>9</sup> Ventura County APCD, 2022 Ventura County Air Quality Management Plan. <u>http://www.vcapcd.org/pubs/Plan-ning/AQMP/2022/Final-2022-AQMP-without-appendices.pdf</u>

#### LIST OF COMPLETED 2023 FTIP TCM PROJECTS IN COACHELLA VALLEY

LEAD AGENCY	TIP ID	PROJECT DESCRIPTION	COMPLETION DATE
COACHELLA	RIV140816	IN EASTERN RIVERSIDE COUNTY FOR THE CITY OF COACHELLA - INSTALL 8.2 MILES OF CLASS II BIKE LANES ON CITY	3/31/2019
		ARTERIALS TO FACILITATE RESIDENTIAL TO COMMERCIAL CONNECTIVITY (\$52.76 OF TC TO MATCH CMAQ IN FY	
		16/17)(PM 2.5 BENEFITS .816 KG/DAY)	
COACHELLA	RIV151217	IN EASTERN RIVERSIDE COUNTY IN THE CITY OF COACHELLA - WIDENING OF AVENUE 48 FROM 2 TO 6 LANES (1	12/31/2019
		LN EA DIR TO 3 LNS EA DIR) FROM JACKSON RD TO VAN BUREN ST INCLUDING TRAFFIC SIGNAL MODIFICATIONS,	
		STREET LIGHTING, DRAINAGE IMPROVEMENTS INCLUDING SIDEWALK AND BICYCLE LANES AND LANDSCAPING	
COACHELLA	RIV140842	IN EASTERN RIVERSIDE COUNTY FOR THE CITY OF COACHELLA - ATP IMPOVEMENTS CYCLE 1: ADD 7 MI. OF CLASS	9/30/2019
		II BIKE LANES & CLASS III BIKEWAYS W/SHARROWS, APSHALT BIKE PATH, PED XING, & CONSTRUCTION OF 2 MI.	
		OF SIDEWALKS AT DIFFERENT LOCATIONS & LANDSCAPED MEDIANS ALONG AVE 50 & AVE 52 FROM WESTERN	
		CITY LIMITS TO CV LINK. TC USED TO MATCH ATP	
DESERT HOT	RIV181004	IN COACHELLA VALLEY IN THE CITY OF DESERT HOT SPRINGS: PALM DR BIKE AND PED. IMPROVEMENTS:	6/29/2020
SPRINGS		CONSTRUCT 2-MI CLASS II BIKE LANES & .65-MI SIDEWALK GAP CLOSURES ALONG PALM DR B/W CAMINO	
		AVENTURA TO TWO BUNCH PALMS TR; INCL BUFFERED BIKE LANE STRIPING, NARROWED TRAFFIC LANES, ADA	
		RAMPS, BUS WARNING SIGNS AND LIGHTS, REDUCED SPEED LIMIT, STREET LIGHTS, & RAISED MEDIAN (ATP-3	
		AUGMENTATION-STATEWIDE)	
INDIO	RIV140848	IN EASTERN RIVERSIDE COUNTY IN THE CITY OF INDIO: ANDREW JACKSON ELEM PED IMPROVEMENTS: ON TEN	12/31/2019
		STREETS WITHIN THE ANDREW JACKSON ELEM SCHOOL COMMUNITY, INSTALL SIDEWALKS, UPGRADE PED	
		ACCESS RAMPS AND DRIVEWAY APPROACHES, THREE ENHANCED CROSSWALKS, AND TWO SPEED FEEDBACK	
		SIGNS. TC USED TO MATCH ATP	
PALM SPRINGS	RIV140818	IN CITY OF PALM SPRINGS-6.25 MI. CLASS II & III BIKE LNS ON:SAN RAFAEL DR FR PALM CYN TO SUNRISE WY;SAN	3/30/2019
		RAFAEL DR FR VIRGINIA RD TO INDIAN CYN;FARRELL DR FR RAMON RD TO TAHQUITZ CYN;MESQUITE AV FR	
		SUNRISE WY TO COMPADRE RD;LA VERNE WY FR S. PALM CYN TO E. PALM CYN;CAMINO REAL FR E. PALM CYN	
		TO LA VERNE WY;CROSSLEY RD FR RAMON TO 341 AV;AVE CABALERROS FR ALEJOS RD TO TAHQUITZ	
		CYN(PM2.5=.018 KG/DAY)	
SUNLINE	RIV140822	IN COACHELLA VALLEY FOR SUNLINE TRANSIT AGENCY: PURCHASE OF TWO NEW BUSES AND OPERATIONS OF	6/30/2017
TRANSIT AGENCY		NEW BUS SERVICE THAT WILL DIRECTLY LINK DESERT HOT SPRINGS AND PALM DESERT. SERVICE TO OPERATE ON	
		WEEKDAYS AND WILL INCLUDE FOUR TRIPS IN THE MORNING (HOURLY) FROM DESERT HOT SPRINGS TO PALM	
		DESERT AND FOUR TRIPS IN THE AFTERNOON (HOURLY) FROM PALM DESERT TO DESERT HOT SPRINGS.	
SUNLINE	RIV150615	IN THE COACHELLA VALLEY FOR SUNLINE TRANSIT: TRANSIT ENHANCEMENTS INCLUDING BUT NOT LIMITED TO	11/2/2017
TRANSIT AGENCY		THE PURCHASE AND INSTALLATION OF 25 SHELTERS, INCLUDING CONCRETE WORK AND OTHER IMPROVEMENTS	
		FOR ADA COMPLIANCE AND IMPROVED SAFETY. (FY15 5307) (UZA: INCCPS)	

#### LIST OF COMPLETED 2023 FTIP TCM PROJECTS IN COACHELLA VALLEY

LEAD AGENCY TIP ID		TIP ID	PROJECT DESCRIPTION	COMPLETION DATE
DESERT	HOT	RIV210629	IN COACHELLA VALLEY IN THE CITY OF DESERT HOT SPRINGS - PALM DRIVE IMPROVEMENTS - PIERSON BLVD. TO	5/19/2023
SPRINGS			MISSION LAKES BLVD. CONSTRUCTION OF 1 MILE OF BUFFERED CLASS II BIKE LANES, 2,700 FEET OF NEW	
			SIDEWALK, 47 ADA CURB RAMPS, 10 HIGH-VISIBILITY CROSSWALKS, STREET LIGHTS AND RAPID FLASHING	
			BEACONS.	
INDIO		RIV181008	IN COACHELLA VALLEY IN CITY OF INDIO: HERBERT HOOVER ELEM PED. IMPROVEMENTS: CONSTRUCT 5.5-MI OF	6/15/2023
			SIDEWALK, CROSSWALKS AND ADA IMPROVEMENTS ALONG 14 SEGMENTS BOUNDED BY INDIO BLVD IN THE NE,	
			MONROE ST TO THE WEST, AND REQUA AVE TO THE SOUTH AND DEGLET NOOR ST TO THE EAST TO CLOSE	
			EXISTING SIDEWALK GAPS; INCL EDUCATIONAL OUTREACH TO STUDENTS & FAMILIES. (ATP-3 AUG STATE) TC	
			UTILIZ FOR FY17/18, 19/20, 20/21, 22/23.	

#### LIST OF TCM PROJECTS CURRENTLY BEING IMPLEMENTED IN COACHELLA VALLEY

LEAD AGENCY	TIP ID	PROJECT DESCRIPTION	COMPLETION DATE
CATHEDRAL CITY	RIV210628	IN COACHELLA VALLEY FOR CATHEDRAL CITY - INSTALL BIKE LANES ON E PALM CNYN DR FRM WEST CITY LIMITS	2/15/2027
		TO CATHEDRAL CNYN DR; BIKE LANE AND MULTI-USE PATH ON CATHEDRAL CNYN DR FROM DINAH SHORE DR	
		TO CANYON SHORES DR; BIKE LANE ON DATE PALM DR FROM PEREZ RD TO E PALM CANYON DR;	
		ADDITIONALLY HIGH-VISIBILITY CROSSWALKS, PEDESTRIAN HYBRID BEACON, MID-BLOCK CROSSING, ADA	
		CURB RAMPS, AND BRIDGE WIDENING WILL BE INSTALLED. OVERALL TOTAL OUTPUT: BIKE LNS 18,760 FT;	
		SIDEWALK 4,330 FT; MULTI-USE PATH 3,450 FT.	
COACHELLA	RIV030901A	IN COACHELLA VALLEY IN THE CITY OF COACHELLA: EXTEND AVE 50 FROM FILLMORE STREET TO INTERSTATE	6/1/2029
		10 INTERCHANGE PROJECT (FTIP ID: RIV030901). EXTEND AVE 50 BY ADDING 6 LANES AND CONSTRUCT BRIDGE	
		OVER AMERICAN CANAL.	
COACHELLA	RIV210635	IN THE COACHELLA VALLEY IN THE CITY OF COACHELLA: WIDEN AVE 50 FROM TYLER STREET TO FILLMORE	12/31/2030
		STREET. WIDEN FROM 2-6 LANES. INCLUDES TRAFFIC SIGNALS AND TURNING LANES AT POLK STREET AND	
		FILLMORE STREET INTERSECTIONS.	
COACHELLA	RIV140820	IN EASTERN RIVERSIDE COUNTY FOR CVAG: REGIONAL SIGNAL SYCHRONIZATION PROGRAM THROUGH THE	12/31/2024
VALLEY ASSOC OF		COACHELLA VALLEY (HIGHWAY 111, WASHINGTON ST, RAMON RD) INCLUDING BUT NOT LIMITED TO SIGNAL	
GOVERNMENTS		UPGRADES, COMMUNICATION SYSTEMS, HARDWARE AND SOFTWARE. (PM 2.5 BENEFITS)	
COACHELLA	RIV131005C	IN EAST RIVERSIDE CO. FOR CVAG: CONSTRUCT SEGMENT 2, 6, AND 7, A 13.72 MILE OF CVLINK PH 1. CVLINK	12/31/2025
VALLEY ASSOC OF		IS A NEW BICYCLE, PED AND LOW SPEED ELECTRICAL VEHICLE PATH ROUGHLY ALONG THE WHITEWATER	
GOVERNMENTS		RIVER.	
COACHELLA	RIV211101	IN EAST RIVERSIDE COUNTY FOR CVAG WITHIN THE CITIES OF INDIO, LA QUINTA, COACHELLA, AND THE	4/30/2027
VALLEY ASSOC OF		COUNTY: CONSTRUCTION OF THE COACHELLA VALLEY ARTS AND MUSIC LINE - NEARLY 9 MILES OF PROTECTED	
GOVERNMENTS		BICYCLE FACILITIES PRIMARILY ALONG AVENUE 48, AND DILLON RD. AND VARIOUS SPUR CONNECTIONS TO	
		SCHOOLS AND OTHER RECREATION FACILITIES WITH A BIKE TO SCHOOL PROGRAM.	
COACHELLA	RIV131005A	IN EAST RIVERSIDE CO. FOR CVAG: CONSTRUCT SEGMENT 1, A 13.47 MILE OF CVLINK PH 1. CVLINK IS A NEW	12/31/2024
VALLEY ASSOC OF		BICYCLE, PED AND LOW SPEED ELECTRICAL VEHICLE PATH ROUGHLY ALONG THE WHITEWATER RIVER. (PPNO	
GOVERNMENTS		1226). TC FY 19/20 ATP & STIP CON.	
COACHELLA	RIV131005B2	IN EAST RIVERSIDE CO FOR CVAG: CONSTRUCT SEGMENT 4 OF CVLINK PH 1. CVLINK IS A BICYCLE, PED AND	12/31/2025
VALLEY ASSOC OF		LOW SPEED ELECTRICAL VEHICLE PATH ROUGHLY ALONG THE WHITEWATER RIVER.	
GOVERNMENTS			
COACHELLA	RIV131005	IN EAST RIVERSIDE CO. FOR CVAG: CONSTRUCT IN SEGMENTS PHASE 1 OF CVLINK, A 41.11 MILE MULTI	12/31/2025
VALLEY ASSOC OF		PURPOSE TRAIL CONSISTING OF NEW BICYCLE, PED AND LOW SPEED ELECTRICAL VEHICLE PATH FROM PALM	
GOVERNMENTS		SPRINGS TO COACHELLA (PPNO 1019). SEGMENT 1: RIV131005A. SEGMENTS 3, 4 & 5: RIV131005B. SEGMENTS:	
		2, 6 & 7: RIV131005C.	

#### LIST OF TCM PROJECTS CURRENTLY BEING IMPLEMENTED IN COACHELLA VALLEY

LEAD AGENCY	TIP ID	PROJECT DESCRIPTION	COMPLETION DATE
COACHELLA	RIV131005B3	IN EAST RIVERSIDE CO FOR CVAG: CONSTRUCT SEGMENT 5 OF CVLINK PH 1. CVLINK IS A BICYCLE, PED AND	12/31/2025
VALLEY ASSOC OF		LOW SPEED ELECTRICAL VEHICLE PATH ROUGHLY ALONG THE WHITEWATER RIVER.	
GOVERNMENTS			
COACHELLA	RIV131005B1	IN EAST RIVERSIDE CO FOR CVAG: CONSTRUCT SEGMENT 3 OF CVLINK PH 1. CVLINK IS A BICYCLE, PED AND	12/31/2025
VALLEY ASSOC OF		LOW SPEED ELECTRICAL VEHICLE PATH ROUGHLY ALONG THE WHITEWATER RIVER.	
GOVERNMENTS			
COACHELLA	RIV140820A	IN EASTERN RIVERSIDE COUNTY FOR CVAG: REGIONAL SIGNAL SYNC PH II ON 18 CORRIDORS (MONTEREY,	12/31/2026
VALLEY ASSOC OF		COOK, PALM DR, BOB HOPE, FRED WARING, DINAH SHORE, GENE AUTRY, DATE PALM, INDIO BLVD,	
GOVERNMENTS		JEFFERSON, PALM CANYON, VISTA CHINO, COUNTRY CLUB, MONROE, AVE 48, SUNRISE, INDIAN CYN,	
		JACKSON) TO INCLUDE SIGNAL UPGRADES, COMMUNICATION SYSTEMS, HARDWARE AND SOFTWARE.	
DESERT HOT	RIV200709	IN COACHELLA VALLEY IN THE CITY OF DESERT HOT SPRINGS - HACIENDA AVE. SRTS IMPROVEMENTS:	1/30/2026
SPRINGS		CONSTRUCT NEW SIDEWALKS, BIKE LANES, ADA RAMPS, AND STREET LIGHTS ALONG HACIENDA AVE FROM	
		WEST DRIVE TO FOXDALE AVENUE.	
DESERT HOT	RIV230303	IN THE CITY OF DESERT HOT SPRINGS: ON PALM DRIVE BETWEEN CAMINO AVENTURA AND I-10 CONSTRUCT	2/25/2026
SPRINGS		BUFFERED NEW TRAFFIC SIGNAL, MEDIANS, SIDEWALKS, CROSSWALKS, STREETLIGHTS, ADA CURB RAMPS,	
		CURB AND GUTTERS, CLASS II BIKE LANE, AND FLASHING BEACONS AT BUS STOPS.	
DESERT HOT	RIV230302	IN THE CITY OF DESERT HOT SPRINGS: CONSTRUCTION OF NEW SIDEWALKS, BUFFERED CLASS II BIKE LANES,	3/11/2026
SPRINGS		RAISED CENTER MEDIANS, ADA CURB RAMPS, CROSSWALKS & STREET LIGHTS ALONG HACIENDA AVE FROM	
		TAMAR DR TO LONG CANYON RD.	
INDIO	RIV210623	IN COACHELLA VALLEY IN THE CITY OF INDIO, WIDEN AVENUE 50 FROM MONROE STREET TO JACKSON STREET	12/30/2030
		FROM 3 TO 4 LANES INCLUDING A CENTER MEDIAN/LEFT TURN LANE. THE IMPROVEMENTS INCLUDE	
		INSTALLING A NEW SIDEWALK ALONG THE SOUTHSIDE AND BIKE LANES ALONG THE BOTH SIDES OF AVENUE	
		50.	
INDIO	RIV210622	IN COACHELLA VALLEY IN THE CITY OF INDIO: WIDEN AVENUE 50 FROM MADISON STREET TO MONROE STREET	12/30/2030
		FROM 2 TO 4 LANES INCLUDING A CENTER MEDIAN/LEFT TURN LANE. THE IMPROVEMENTS INCLUDE	
		INSTALLING A NEW SIDEWALK AND BIKE LANE ALONG AVENUE 50.	
INDIO	RIV210621	IN COACHELLA VALLEY IN THE CITY OF INDIO: WIDEN JACKSON STREET FROM APPROX. 0.5 MILES N/O AVENUE	12/31/2025
		50 TO APPROX. 0.25 MILES S/O AVENUE 52 FROM 3 TO 4 LANES. IMPROVEMENTS INCLUDE ADDING SIDEWALK	
		ALONG THE EAST SIDE OF JACKSON STREET AND BIKE LANES ALONG BOTH SIDES. NEW TRAFFIC SIGNALS WILL	
		BE INSTALLED AT AVENUE 50, AVENUE 51, AND AVENUE 52.	

#### LIST OF TCM PROJECTS CURRENTLY BEING IMPLEMENTED IN COACHELLA VALLEY

LEAD AGENCY	TIP ID	PROJECT DESCRIPTION	COMPLETION DATE
INDIO	RIV210620	IN COACHELLA VALLEY IN THE CITY OF INDIO: WIDEN THE NORTHSIDE OF AVENUE 50 FROM JEFFERSON TO	12/30/2030
		MADISON STREET FROM 1 TO 2 LANES INCLUDING A CENTER MEDIAN/LEFT TURN LANE. THE IMPROVEMENTS	
		INCLUDE INSTALLING A NEW SIDEWALK AND BIKE LANE ALONG THE NORTHSIDE OF AVENUE 50.	
LA QUINTA	RIV210624	IN COACHELLA VALLEY, IN THE CITY OF LA QUINTA: WIDEN THE SOUTHSIDE OF AVENUE 50 FROM 1 TO 2 LANES	12/31/2030
		BETWEEN VERANO DRIVE TO MADISON STREET, INCLUDING CLASS II BIKE LANES AND SIDEWALK BETWEEN	
		JEFFERSON STREET TO VERANO DRIVE.	
RANCHO MIRAGE	RIV221002	IN THE CITY OF RANCHO MIRAGE - TRAFFIC SIGNAL INTERCONNECT AND CONTROLLER CABINET UPGRADES AT	10/1/2028
		18 INTERSECTIONS: RAMON RD, DA VALL DR, RATTLER RD, LOS ALAMOS RD, DINAH SHORE DR, MISSION HILLS	
		DR (NORTH), MISSION HILLS DRIVE/LINCOLN PL, WESTIN MISSION HILLS RESORT, BOB HOPE DR, DEAN MARTIN	
		DR, GINGER ROGERS DR, INVERNESS DR/LOS ALAMOS DR, VICTORIA FALLS DR, VERSAILLES DR, GERALD FORD	
		DR, MORNINGSIDE DR/THOMPSON DR, AND FRANK SINATRA DR.	
RIVERSIDE	RIV200701	IN EASTERN RIVERSIDE CO. FOR THE UNINCORPORATED COMMUNITIES OF THERMAL AND OASIS:	12/30/2024
COUNTY		INSTALLATION OF APPROX. 62,304 LF OF MULTI-MODAL TRAILS (10 FOOT WIDE PATH), 12,144 LF OF	
		PEDESTRIAN INFRASTRUCTURE (5 FOOT CONCRETE SIDEWALK WITH CURB AND GUTTER) AND 10 BENCHES. TC	
		TO MATCH ATP. (SB1 FOR ENG AND FEDERAL FUNDS FOR CON).	
SUNLINE TRANSIT	RIV190606	IN THE COACHELLA VALLEY FOR SUNLINE TRANSIT AGENCY - NEW OPERATING SERVICE FOR QUICK BUS (ROUTE	12/31/2025
AGENCY		1) LIMITED STOP SERVICE THAT WILL OPERATE EVERY 60-MIN IN TWO MAJOR SEGMENTS: B/W PALM CANYON	
		AT STEVENS IN PALM SPRINGS AND THE SUNLINE TRANSIT HUB AT TOWN CTR IN PALM DESERT; AND B/W THE	
		TOWN CTR IN PALM DESERT & THE TRANSIT CTR AT 5TH & VINE STREETS IN COACHELLA.	
SUNLINE TRANSIT	RIV190607	IN THE COACHELLA VALLEY FOR SUNLINE TRANSIT AGENCY - NEW 'SUNRIDE' RIDESHARE PROGRAM TO	12/31/2023
AGENCY		INCLUDE PURCHASE OF 4 VANS AND OPERATING ASSISTANCE TO PROVIDE FIRST AND LAST MILE	
		CONNECTIONS.	

# Draft <u>Final</u> Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**APPENDIX III: MODEL PERFORMANCE EVALUATION** 

### **Table of Contents**

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Meteorological Model Performance Statistics in the Coachella Valley	-1
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CMAQ Model Performance Time Series	III-21
CMAQ Model Performance – Diurnal Variation	111-49
CMAQ VOC Model Performance Scatter Plots	111-76

### Introduction

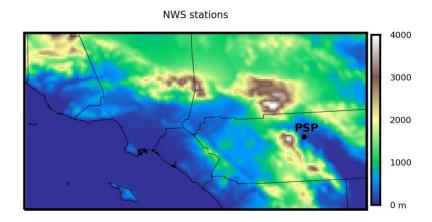
This appendix provides information on the performance of the meteorological and photochemical transport models used in the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard (Plan). Modeling performances are provided for both the Coachella Vally and its upwind South Coast Air Basin. The first section discusses the performance of the meteorological model in the Coachella Valley. Meteorological model evaluation for stations in the South Coast Air Basin was presented in Appendix II of the 2012 Annual PM2.5 Standard (PM2.5 Plan).<sup>1</sup> After this section, the air quality model performance are presented as follows: (1) model performance statistics for 8-hour and hourly ozone; (2) CMAQ model performance timeseries for daily max 8-hour ozone, and daily NOx and NOy to show a comparison between modeled values and observations; (3) CMAQ model performance of diurnal variation of ozone, NOx and NOy compared to observations; and (4) Comparison of modeled selected volatile organic compounds (VOC) with observations.

# Meteorological Model Performance Statistics in the Coachella Valley

This section analyzes the performance of the meteorological model in the Coachella Valley. The Weather Research and Forecasting (WRF) model was used to generate meteorological fields that are used for air quality modeling. The model configuration, input database, and initial and boundary values used in this Plan are the same as those in the PM2.5 Plan.<sup>2</sup> Model evaluation for stations in the South Coast Air Basin is presented in Appendix II of the PM2.5 Plan. This section includes modeling performance for the Coachella Valley, which was not included in the PM2.5 Plan.

<sup>&</sup>lt;sup>1</sup> https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-(sip)-revisions/2012-annual-pm2-5-plan

<sup>&</sup>lt;sup>2</sup> https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-(sip)-revisions/2012-annual-pm2-5-plan



### FIGURE III-1 LOCATION OF PALM SPRINGS INTERNATIONAL AIRPORT (PSP) WEATHER STATION DISPLAYED OVER A TOPOGRAPHIC MAP

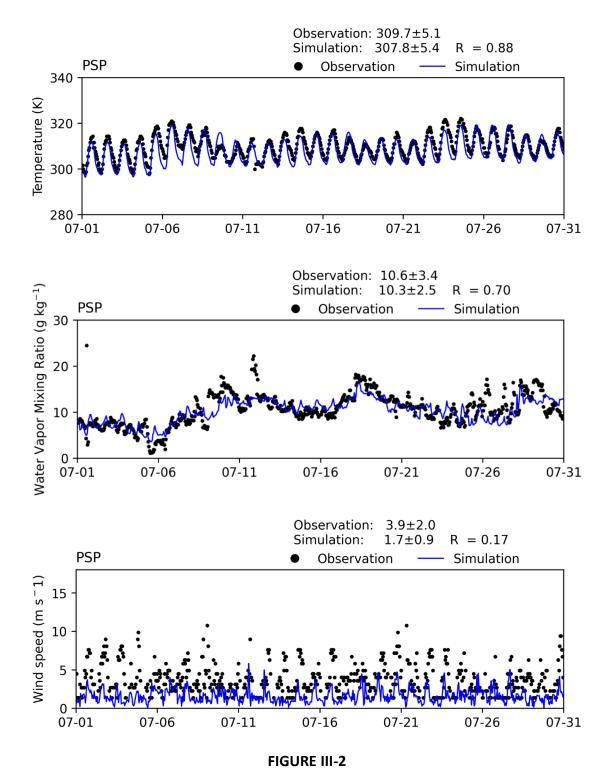
The performance evaluation of the WRF model simulations is based on a comparison with meteorological data from the Palm Springs International Airport (PSP). The analysis focuses on hourly temperature, water mixing ratio, and wind speed for the entire ozone season, from May 1<sup>st</sup> through September 30<sup>th</sup> 2018, with results presented in Table III-1.

Overall, WRF simulations for the summer ozone season provided representative meteorological fields that accurately characterized the observed conditions. The model's performance was evaluated on a monthly basis at the PSP airport station from May to September 2018. For simplicity, detailed results for July are shown in Figure III-2.

WRF simulations successfully represented diurnal variations in temperature (T), humidity (Q), and surface wind speed (WS). The model accurately captured both daily maximum and minimum temperatures for most days in July, although there was an underestimation of temperatures around July 6-8, 2018. Since temperature is a key factor for atmospheric photochemical reactions, with high temperatures favoring ozone formation, this is a critical aspect of the model's performance. Compared to observations, the model underestimated daily maximum wind speeds at the PSP station in July 2018. However, the WRF simulations yielded water vapor mixing ratios that were comparable to observed values for the same period.

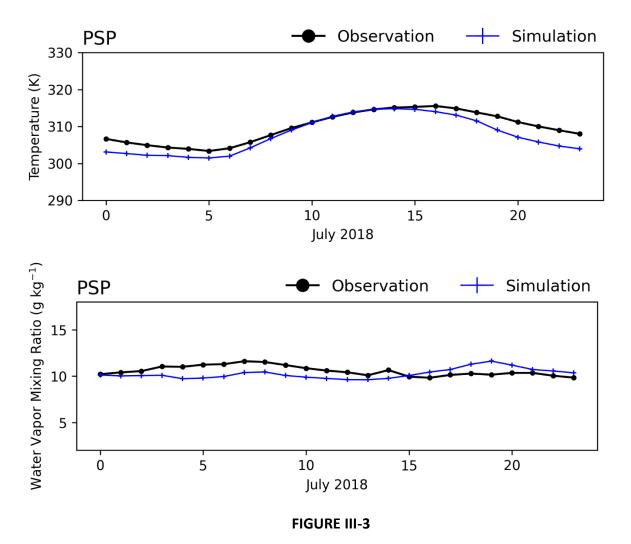
#### WRF PERFORMANCE STATISTICS AT PALM SPRINGS INTERNATIONAL AIRPORT

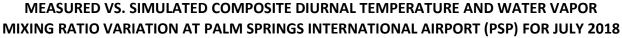
	Statistic	Value
т	T Mean Observation (K)	306.1
	T Mean Simulation (K)	303.9
	T Bias (K)	-2.2
	T Gross Error (K)	2.6
	T RMSE (K)	3.2
	Q Mean Observation (kg/kg)	8.1
Q	Q Mean Simulation (kg/kg)	7.7
	Q Bias (kg/kg)	-0.4
	Q Gross Error (kg/kg)	1.8
	Q RMSE (kg/kg)	2.4
	WS Mean Observation (m/s)	3.5
WS	WS Mean Simulation (m/s)	1.5
	WS Bias (m/s)	-2
	WS Gross Error (m/s)	2.5
	WS RMSE (m/s)	3.3



TIME SERIES OF HOURLY TEMPERATURE, WIND SPEED AND WATER VAPOR MIXING RATIO FROM MEASUREMENTS AND WRF SIMULATIONS AT PALM SPRINGS INTERNATIONAL AIRPORT FOR JULY 2018

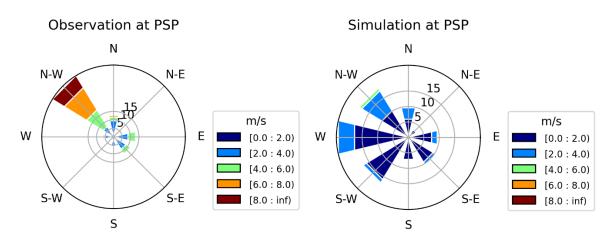
Comparisons of simulated and measured monthly average diurnal temperature and water vapor mixing ratio variations at the PSP station are shown in Figure III-3. The diurnal patterns were well reproduced in the WRF simulation. For example, daily temperatures in both observed and simulated diurnal profiles show the daily minimum (~302 K) occurs around 5:00 local time during summer, and the peak values (~313 K) are around 14:00 – 16:00 local time. Water vapor mixing ratios in July did not exhibit distinct diurnal variation in either observed or simulated data.





The measured and WRF simulated wind rose at PSP station for the ozone season period are shown in Figure III-4. The observations show north-westerly wind as the dominant wind direction, while the WRF simulations show weaker wind speed with prevailing wind direction come from north-westerly and westerly. The WRF model misses the prevailing direction of the wind, which could be attributed to the characteristics of the terrain near Palm Springs. The narrow Banning pass that is located upwind from

Palm Springs is likely characterized poorly in the modeling framework, which uses a model grid resolution of 4 km by 4 km that is too coarse to resolve the sharp gradients along that pass. Despite the limitation of the model to simulate the wind direction, air quality modeling driven by the meteorological model yields modeled ozone concentrations in good agreement with observations.



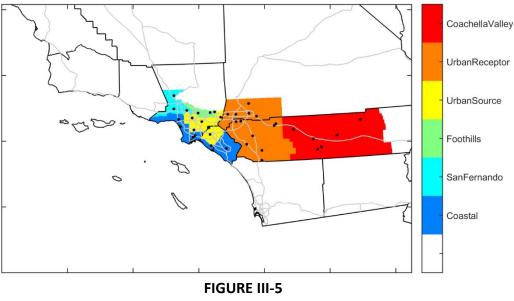


#### WIND ROSE FROM MEASUREMENT AND WRF SIMULATION AT PALM SPRINGS INTERNATIONAL AIRPORT IN MAY-SEPTEMBER OF 2018

### Air Quality Model Performance Statistics

The ozone levels in the Coachella Valley are closely tied with those of the South Coast Air Basin. Therefore, modeling performance evaluation was conducted for both the South Coast Air Basin and the Coachella Valley. Unlike meteorological modeling analysis, ozone modeling performance for the South Coast Air Basin using the modeling platform employed in this Plan was not presented in the PM2.5 Plan or any other previous plans. Therefore, model performance evaluation for ozone and some of its precursors in the South Coast Air Basin is included here. The Community Multiscale Air Quality (CMAQ) model, version 5.3.1, was employed to simulate the ozone season that spanned from May 1 through September 30, 2018. Model performance was evaluated against the measured ozone concentrations, NOx concentrations and NOy concentrations. The observations are from the EPA's Air Quality System (AQS) database. Statistics for monitoring sites are grouped into performance evaluation zones, shown in Figure III-5. The ozone monitoring stations in the South Coast Air Basin and the Coachella Valley are listed in Table III-2, along with their corresponding evaluation zone. Statistics for the daily maximum 8-hour average (MDA8) for each evaluation zone are presented in Table III-3 through Table III-14. For each evaluation zone, statistics are presented for pairs with regional MDA8 above 60 ppb, and for all MDA8 values. In general, the model prediction shows good agreement with measurements, with a tendency to underestimate the peak ozone

days during the May to September ozone season. Because of the tendency of underestimate peak values, the model bias for pairs above 60 ppb tends to be lower (or more negative), and the model error tends to be slightly larger than the model bias calculated using all the values. Overall, the model performance shown here is comparable to the performance shown in the 2022 AQMP.<sup>3</sup> Table III-15 through Table III-26 presents similar statistics for hourly ozone.



PERFORMANCE EVALUATION ZONES

<sup>&</sup>lt;sup>3</sup> 2022 Air Quality Management Plan: https://www.aqmd.gov/home/air-quality/air-quality-management-plans/airquality-mgt-plan

TABLE III-2
LIST OF OZONE MONITORING STATIONS IN THE SOUTH COAST AIR BASIN
AND THE COACHELLA VALLEY

Station	Abbreviation	Performance Evaluation Zone
Los Angeles International Airport (LAX)	LAXH	Coastal
Long Beach	LGBH	Coastal
Mission Viejo	MSVJ	Coastal
West Los Angeles	WSLA	Coastal
Reseda	RESE	SanFernando
Santa Clarita	SCLR	SanFernando
Azusa	AZUS	Foothills
Glendora	GLEN	Foothills
Pasadena	PASA	Foothills
Anaheim	ANAH	UrbanSource
Central Los Angeles	CELA	UrbanSource
Compton	СМРТ	UrbanSource
La Habra	LAHB	UrbanSource
Pico Rivera	PICO	UrbanSource
Pomona	POMA	UrbanSource
Banning	BNAP	UrbanReceptor
Crestline	CRES	UrbanReceptor
Fontana	FONT	UrbanReceptor
Lake Elsinore	ELSI	UrbanReceptor
Mira Loma	MRLM	UrbanReceptor
Perris	PERI	UrbanReceptor
Redlands	RDLD	UrbanReceptor
Riverside	RIVR	UrbanReceptor
San Bernardino	SBNO	UrbanReceptor
Temecula	TMCA	UrbanReceptor
Upland	UPLA	UrbanReceptor
Indio	INDI	CoachellaValley
Palm Springs	PLSP	CoachellaValley

TABLE III-3 2018 BASE YEAR MDA8 OZONE PERFORMANCE FOR DAYS WHEN REGIONAL MDA8 ≥ 60 PPB IN THE COASTAL REGION

Month	Num. of Obs. with MDA8 >= 60 ppb	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	4	63.24	62.42	65.25	-2.01	-2.83	3.47	3.48	-3.08	-4.34	5.32	5.33	3.80
Jun	4	54.81	54.78	66.25	-11.44	-11.47	11.44	11.47	-17.27	-17.32	17.27	17.32	-27.82
Jul	6	65.20	64.45	69.83	-4.63	-5.39	12.25	11.50	-6.64	-7.71	17.54	16.46	-6.96
Aug	2	57.26	55.87	69.00	-11.74	-13.13	11.74	13.13	-17.01	-19.02	17.01	19.02	-27.46
Sep	8	58.58	57.35	70.00	-11.42	-12.65	11.85	12.65	-16.31	-18.07	16.93	18.07	-20.15

# TABLE III-42018 BASE YEAR MDA8 OZONE PERFORMANCE IN THE COASTAL REGION

Month	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	45.86	44.77	44.23	1.63	0.54	3.63	3.46	3.69	1.23	8.22	7.83	3.80
Jun	44.60	43.54	45.13	-0.52	-1.58	4.86	5.09	-1.16	-3.51	10.77	11.29	-13.25
Jul	44.07	43.30	39.11	4.96	4.19	7.72	7.26	12.68	10.71	19.73	18.56	-6.96
Aug	44.00	43.21	40.88	3.12	2.33	7.51	7.31	7.64	5.69	18.38	17.88	-5.02
Sep	48.78	47.85	47.79	0.99	0.07	6.13	6.02	2.07	0.14	12.82	12.60	-19.09

TABLE III-5

2018 BASE YEAR MDA8 OZONE PERFORMANCE FOR DAYS WHEN REGIONAL MDA8 ≥ 60 PPB IN THE SAN FERNANDO REGION

Month	Num. of Obs. with MDA8 >= 60 ppb	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	16	64.74	63.48	70.75	-6.01	-7.27	9.06	9.91	-8.49	-10.28	12.81	14.01	-18.93
Jun	48	63.53	62.66	71.42	-7.88	-8.75	10.26	10.88	-11.04	-12.26	14.37	15.24	-14.81
Jul	40	69.25	68.56	74.68	-5.42	-6.11	9.78	10.34	-7.26	-8.18	13.10	13.85	-2.24
Aug	45	60.84	60.21	73.27	-12.43	-13.06	13.94	14.31	-16.96	-17.82	19.03	19.53	-28.89
Sep	43	64.69	64.48	70.21	-5.52	-5.73	7.64	7.77	-7.86	-8.16	10.88	11.07	-0.63

# TABLE III-62018 BASE YEAR MDA8 OZONE PERFORMANCE IN THE SAN FERNANDO REGION

Month	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	55.61	54.35	54.03	1.58	0.32	7.23	7.21	2.93	0.59	13.37	13.35	-18.93
Jun	61.03	60.19	67.33	-6.31	-7.14	8.82	9.35	-9.37	-10.60	13.10	13.89	-14.81
Jul	63.78	63.07	67.11	-3.33	-4.05	9.10	9.31	-4.96	-6.03	13.56	13.88	-2.24
Aug	58.90	58.23	67.69	-8.80	-9.47	12.33	12.53	-13.00	-13.99	18.21	18.51	-28.89
Sep	63.35	63.04	65.67	-2.32	-2.62	7.52	7.50	-3.53	-4.00	11.45	11.42	-0.63

[ppb]

61.50

59.75

70.70

65.23

64.79

[ppb]

-6.73

-10.43

-1.64

-7.69

-3.30

68.78

70.50

72.95

73.19

68.48

>= 60

18

48

55

58

50

ppb

May

Jun

Jul

Aug Sep

[ppb]

62.05

60.07

71.30

65.50

65.18

2018 BASE YEAR MDA8 OZONE PERFORMANCE FOR DAYS WHEN REGIONAL MDA8 ≥ 60 PPB IN THE FOOTHILLS REGION MDA8 Month Num. MDA8 MDA8 MDA8 MDA8 MDA8 MDA8 Norm Norm Norm Norm Peak of Obs. MDA8 Mean Mean Mean Mean Mean Mean Mean MDA8 MDA8 MDA8 Prediction with Model Model Obs. Bias Bias Error Error Mean Mean Mean Mean Accuracy Unpaired Paired Unpaired Paired Unpaired Paired Bias Bias Error Unpaired MDA8 [ppb] Error

[ppb]

7.63

11.32

10.57

11.26

5.88

[ppb]

8.12

11.53

10.56

11.37

6.12

[ppb]

-7.27

-10.75

-2.24

-7.96

-3.69

Paired

-10.58

-15.25

-3.07

-10.88

-5.39

[%]

Unpaired

-9.79

-2.25

-10.50

-4.82

-14.80

[%]

Paired

11.81

16.35

14.47

15.53

8.93

[%]

Unpaired

11.10

16.06

14.49

15.38

8.58

[%]

[%]

-1.55

7.82

-30.56

-11.86

-2.94

TABLE III-7

TABLE III-8
2018 BASE YEAR MDA8 OZONE PERFORMANCE IN THE FOOTHILLS REGION

Month	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	53.18	51.29	48.94	4.24	2.35	7.82	7.07	8.66	4.80	15.99	14.44	-1.55
Jun	57.53	57.15	62.13	-4.59	-4.98	8.38	8.46	-7.39	-8.01	13.49	13.61	-30.56
Jul	65.76	65.13	65.67	0.09	-0.54	9.58	9.49	0.13	-0.83	14.60	14.45	7.82
Aug	61.59	61.08	65.21	-3.62	-4.13	9.36	9.20	-5.56	-6.33	14.35	14.10	-11.86
Sep	61.22	60.78	62.19	-0.97	-1.42	5.92	6.07	-1.56	-2.28	9.52	9.76	-2.94

3.80

8.47

8.84

Month Num. MDA8 MDA8 MDA8 MDA8 MDA8 MDA8 MDA8 Norm Norm Norm Norm Peak of Obs. Mean MDA8 MDA8 MDA8 Prediction Mean Mean Mean Mean Mean Mean MDA8 with Model Model Obs. Bias Bias Error Error Mean Mean Mean Mean Accuracy MDA8 Unpaired Paired [ppb] Unpaired Paired **Unpaired** Paired Bias Unpaired Bias Error Error Unpaired Paired [%] >= 60 [ppb] [ppb] [ppb] [ppb] [ppb] [ppb] Unpaired Paired [%] ppb [%] [%] [%] 8 64.21 63.60 62.25 1.35 5.47 5.39 3.14 2.17 8.79 8.66 15.39 May 1.96 19 59.26 58.92 64.32 -5.06 -5.40 10.07 10.22 -7.86 -8.40 15.65 15.89 -1.50 Jun 31 67.97 17.32 Jul 72.86 72.49 4.89 4.52 11.81 11.77 7.19 6.66 17.38 10.21 Aug 28 62.99 62.84 67.86 -4.87 -5.01 8.28 8.42 -7.18 -7.39 12.20 12.41 -7.26

#### **TABLE III-9**

#### 2018 BASE YEAR MDA8 OZONE PERFORMANCE FOR DAYS WHEN REGIONAL MDA8 ≥ 60 PPB IN THE URBAN SOURCE REGION

# TABLE III-10 2018 BASE YEAR MDA8 OZONE PERFORMANCE IN THE URBAN SOURCE REGION

5.71

5.95

-2.20

-3.01

-2.03

-1.48

19

65.89

Sep

65.34

67.37

Month	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	50.08	49.19	44.01	6.07	5.17	7.25	6.70	13.78	11.75	16.48	15.23	15.39
Jun	52.03	51.50	50.35	1.68	1.15	6.49	6.31	3.33	2.29	12.89	12.54	3.29
Jul	55.71	55.27	50.36	5.35	4.91	9.59	9.48	10.61	9.76	19.05	18.83	10.21
Aug	53.48	53.19	50.70	2.78	2.49	8.17	8.01	5.49	4.91	16.11	15.80	-1.75
Sep	55.58	55.20	52.20	3.38	3.00	6.89	6.77	6.47	5.74	13.19	12.97	3.80

TABLE III-11

# 2018 BASE YEAR MDA8 OZONE PERFORMANCE FOR DAYS WHEN REGIONAL MDA8 ≥ 60 PPB IN THE URBAN RECEPTOR REGION

Month	Num. of Obs. with MDA8 >= 60 ppb	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	112	71.73	70.79	72.89	-1.16	-2.11	5.46	5.84	-1.60	-2.89	7.49	8.01	-16.24
Jun	238	73.57	73.09	79.33	-5.76	-6.24	7.78	8.08	-7.26	-7.87	9.80	10.19	-33.71
Jul	278	77.57	76.57	77.15	0.41	-0.59	8.81	9.00	0.53	-0.76	11.42	11.66	-1.75
Aug	254	72.49	71.81	74.86	-2.37	-3.06	8.08	8.23	-3.16	-4.08	10.80	10.99	-12.95
Sep	225	71.35	70.60	70.83	0.52	-0.23	7.97	8.03	0.74	-0.33	11.25	11.33	-6.96

## TABLE III-12

#### 2018 BASE YEAR MDA8 OZONE PERFORMANCE IN THE URBAN RECEPTOR REGION

Month	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	62.33	61.37	57.66	4.67	3.71	7.57	7.27	8.10	6.43	13.13	12.61	-16.24
Jun	69.95	69.39	74.03	-4.08	-4.64	7.09	7.28	-5.51	-6.27	9.58	9.83	-33.71
Jul	76.51	75.50	75.56	0.95	-0.06	8.86	8.98	1.26	-0.08	11.73	11.89	-1.75
Aug	71.16	70.49	71.98	-0.82	-1.49	8.55	8.63	-1.14	-2.07	11.88	11.99	-12.95
Sep	69.55	68.68	66.23	3.32	2.44	9.21	9.12	5.02	3.69	13.91	13.76	-6.96

#### TABLE III-13

## 2018 BASE YEAR MDA8 OZONE PERFORMANCE FOR DAYS WHEN REGIONAL MDA8 ≥ 60 PPB IN THE COACHELLA VALLEY REGION

Month	Num. of Obs. with MDA8 >= 60 ppb	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	37	68.23	67.31	71.19	-2.96	-3.88	4.94	5.48	-4.16	-5.45	6.94	7.70	-17.07
Jun	51	70.46	68.02	75.92	-5.46	-7.90	8.89	10.27	-7.19	-10.41	11.71	13.53	-6.67
Jul	34	66.51	64.78	69.35	-2.84	-4.58	7.64	8.18	-4.09	-6.60	11.01	11.80	-3.47
Aug	46	63.22	60.24	69.09	-5.87	-8.85	8.74	10.71	-8.50	-12.81	12.65	15.50	0.88
Sep	14	59.12	57.64	68.29	-9.17	-10.64	9.52	10.76	-13.42	-15.59	13.95	15.76	-22.29

## TABLE III-14

# 2018 BASE YEAR MDA8 OZONE PERFORMANCE IN THE COACHELLA VALLEY REGION

Month	MDA8 Mean Model Unpaired [ppb]	MDA8 Mean Model Paired [ppb]	MDA8 Mean Obs. [ppb]	MDA8 Mean Bias Unpaired [ppb]	MDA8 Mean Bias Paired [ppb]	MDA8 Mean Error Unpaired [ppb]	MDA8 Mean Error Paired [ppb]	Norm MDA8 Mean Bias Unpaired [%]	Norm MDA8 Mean Bias Paired [%]	Norm MDA8 Mean Error Unpaired [%]	Norm MDA8 Mean Error Paired [%]	Peak Prediction Accuracy Unpaired [%]
May	64.64	63.44	64.86	-0.23	-1.42	4.90	4.85	-0.35	-2.19	7.55	7.48	-17.07
Jun	68.56	66.33	73.41	-4.85	-7.08	8.66	9.92	-6.61	-9.64	11.79	13.51	-6.67
Jul	64.60	62.09	62.30	2.31	-0.21	8.92	8.40	3.71	-0.34	14.33	13.48	-3.47
Aug	62.83	59.84	65.03	-2.20	-5.19	9.30	10.17	-3.39	-7.98	14.30	15.63	2.29
Sep	60.63	56.76	54.16	6.48	2.61	11.52	11.06	11.97	4.82	21.27	20.43	-1.19

TABLE III-15 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE FOR DAYS WHEN REGIONAL HOURLY OZONE ≥ 60 PPB IN THE COASTAL REGION

Month	Num. of Obs. with Hourly Ozone>= 60 ppb	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	46	60.79	67.20	-6.40	10.32	-9.53	15.36	-0.60
Jun	70	53.12	65.49	-12.36	13.40	-18.88	20.46	-18.78
Jul	58	61.60	69.78	-8.18	14.82	-11.72	21.23	-3.12
Aug	42	51.02	66.74	-15.72	16.24	-23.55	24.33	-16.32
Sep	110	57.94	68.87	-10.94	13.89	-15.88	20.17	-17.44

# TABLE III-162018 BASE YEAR 1-HOUR OZONE PERFORMANCE IN THE COASTAL REGION

Month	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	36.28	35.60	0.68	6.55	1.91	18.41	-0.60
Jun	33.58	35.30	-1.73	7.04	-4.90	19.95	-16.34
Jul	32.99	28.12	4.87	8.52	17.31	30.30	-3.12
Aug	33.77	29.83	3.94	8.32	13.21	27.90	-1.07
Sep	36.32	34.71	1.61	7.98	4.65	23.00	-17.44

# TABLE III-17 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE FOR DAYS WHEN REGIONAL HOURLY OZONE ≥ 60 PPB IN THE SAN FERNANDO REGION

Month	Num. of Obs. with Hourly Ozone>= 60 ppb	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	142	62.82	71.11	-8.30	11.18	-11.67	15.72	-21.04
Jun	348	63.00	74.16	-11.16	13.85	-15.05	18.68	-14.81
Jul	330	68.32	75.83	-7.51	13.55	-9.90	17.87	4.89
Aug	338	59.94	75.78	-15.84	17.73	-20.90	23.40	-6.53
Sep	325	66.14	72.93	-6.80	10.50	-9.32	14.40	-0.99

#### TABLE III-18

# 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE IN THE SAN FERNANDO REGION

Month	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	40.88	38.57	2.31	8.78	5.99	22.77	-21.04
Jun	42.36	43.11	-0.74	9.72	-1.72	22.55	-14.81
Jul	42.66	41.26	1.40	9.64	3.39	23.36	4.89
Aug	39.58	39.93	-0.34	11.43	-0.86	28.62	-6.53
Sep	43.21	39.92	3.29	10.74	8.23	26.90	-0.99

# TABLE III-19 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE FOR DAYS WHEN REGIONAL HOURLY OZONE ≥ 60 PPB IN THE FOOTHILLS REGION

Month	Num. of Obs. with Hourly Ozone>= 60 ppb	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	144	64.06	71.73	-7.67	8.93	-10.69	12.45	-1.29
Jun	387	62.95	72.82	-9.87	12.14	-13.55	16.67	-28.16
Jul	435	73.19	76.09	-2.90	12.94	-3.82	17.00	4.53
Aug	435	67.12	76.93	-9.80	12.86	-12.75	16.72	-9.64
Sep	371	67.84	73.42	-5.58	9.04	-7.60	12.31	10.16

# TABLE III-202018 BASE YEAR 1-HOUR OZONE PERFORMANCE IN THE FOOTHILLS REGION

Month	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	37.94	34.21	3.72	8.63	10.88	25.22	-1.29
Jun	36.89	37.55	-0.66	7.87	-1.76	20.97	-28.16
Jul	39.70	34.82	4.88	10.26	14.01	29.45	4.53
Aug	36.91	34.70	2.21	9.64	6.37	27.78	-7.56
Sep	37.81	34.00	3.80	8.92	11.19	26.22	10.16

# TABLE III-21 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE FOR DAYS WHEN REGIONAL HOURLY OZONE ≥ 60 PPB IN THE URBAN SOURCE REGION

Month	Num. of Obs. with Hourly Ozone>= 60 ppb	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	76	65.30	66.03	-0.73	9.26	-1.10	14.03	17.56
Jun	210	60.96	67.13	-6.17	11.72	-9.18	17.46	1.69
Jul	275	72.59	71.77	0.81	13.39	1.13	18.65	1.64
Aug	298	65.15	69.80	-4.65	11.08	-6.66	15.88	-2.23
Sep	301	66.02	68.76	-2.73	9.30	-3.98	13.53	-1.02

#### TABLE III-22

# 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE IN THE URBAN SOURCE REGION

Month	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	36.66	31.99	4.66	7.89	14.58	24.66	17.56
Jun	35.56	33.95	1.61	7.47	4.75	21.99	1.69
Jul	36.74	29.97	6.77	10.15	22.61	33.89	1.64
Aug	35.30	29.89	5.41	9.35	18.09	31.27	-2.23
Sep	36.59	31.49	5.11	9.01	16.22	28.63	-1.02

# TABLE III-23

# 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE FOR DAYS WHEN REGIONAL HOURLY OZONE ≥ 60 PPB IN THE URBAN RECEPTOR REGION

Month	Num. of Obs. with Hourly Ozone>= 60 ppb	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	1071	70.04	72.72	-2.68	8.17	-3.68	11.24	-10.79
Jun	2234	70.92	78.12	-7.21	9.90	-9.23	12.67	-10.27
Jul	2204	76.21	78.55	-2.34	11.48	-2.98	14.62	6.93
Aug	2043	71.72	77.34	-5.62	11.59	-7.27	14.99	-4.95
Sep	1708	71.41	73.89	-2.48	10.68	-3.36	14.46	1.36

## TABLE III-24

# 2018 BASE YEAR 1-HOUR OZONE PERFORMANCE IN THE URBAN RECEPTOR REGION

Month	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	45.56	40.39	5.17	8.91	12.80	22.07	-10.79
Jun	47.50	46.14	1.36	8.87	2.96	19.23	-10.27
Jul	49.36	43.39	5.97	12.00	13.77	27.65	6.93
Aug	45.45	41.46	3.99	10.79	9.62	26.02	-4.95
Sep	46.52	38.83	7.69	12.42	19.80	31.99	1.36

# TABLE III-25 2018 BASE YEAR HOURLY OZONE PERFORMANCE FOR DAYS WHEN REGIONAL HOURLY OZONE ≥ 60 PPB IN THE COACHELLA VALLEY REGION

Month	Num. of Obs. with Hourly Ozone>= 60 ppb	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	475	64.91	69.51	-4.61	7.18	-6.63	10.33	-12.41
Jun	772	64.20	72.99	-8.79	11.33	-12.05	15.52	-12.32
Jul	422	62.32	68.67	-6.35	9.76	-9.25	14.21	-9.77
Aug	519	59.53	68.99	-9.46	11.51	-13.72	16.69	-10.27
Sep	210	56.46	67.86	-11.40	12.82	-16.80	18.89	-8.05

# TABLE III-262018 BASE YEAR HOURLY OZONE PERFORMANCE IN THE COACHELLA VALLEY REGION

Month	Hourly Ozone Mean Model [ppb]	Hourly Ozone Mean Obs. [ppb]	Hourly Ozone Mean Bias [ppb]	Hourly Ozone Mean Error [ppb]	Norm Hourly Ozone Mean Bias [%]	Norm Hourly Ozone Mean Error [%]	Peak Prediction Accuracy [%]
May	55.45	54.49	0.96	6.68	1.76	12.26	-12.41
Jun	58.14	61.31	-3.17	10.18	-5.17	16.60	-12.32
Jul	55.35	51.58	3.77	10.58	7.31	20.51	-9.77
Aug	52.83	52.21	0.62	10.93	1.19	20.93	-2.35
Sep	51.17	44.53	6.64	12.95	14.91	29.07	-5.60

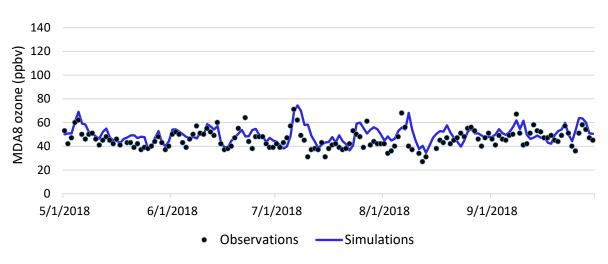
# CMAQ Model Performance Time Series

Figures III-A1-A30 present the comparison of CMAQ modeling and observations for the MDA8 ozone at 26 stations in the South Coast Air Basin, 2 stations in the Coachella Valley, and 2 stations situated near the border with Mexico in Imperial County. In general, the model prediction shows good agreement with measurements. Although some peak ozone days and very low ozone days are missed by the model. The model captures the regional differences in the MDA8 observations, showing lower ozone concentrations in coastal regions, like in West Los Angeles, Los Angeles International Airport (LAX) and Long Beach, and higher concentrations in monitors at the foothills, like Azusa and Glendora, and over urban receptor areas, like in Upland and Crestline. The timeseries for Calexico and El Centro show a greater discrepancy between observations and modeled MDA8, with the model overestimating concentrations, partly due to the uncertainty in the boundary conditions that are close to the monitors.

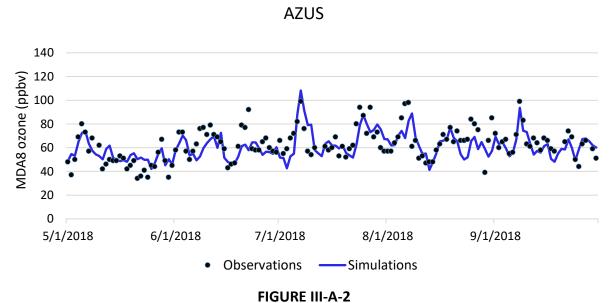
Out of the 30 monitors that report ozone observations, 22 monitors also measure NOx concentrations. Figures III-B1-B22 show the comparison of CMAQ predictions and observations for the daily average NOx. For stations in the Urban Source region and along the coast, the model prediction shows good agreement with measurements. For example, the time series at the stations in Central Los Angeles, Anaheim and Compton show that the model captures several high NOx episodes and reproduces the lower NOx value days as well. However, the model tends to underestimate NOx in monitors located downwind from central Los Angeles and in the eastern portion of the basin, like Pomona, Riverside, Fontana and San Bernardino. Different from other stations, LAX is the one station that shows slightly overestimation from the model.

Figures III-C1-C2 depict the comparison of CMAQ modeling and observations for the daily average NOy at the station of Central Los Angeles and Riverside. The model reproduces the daily NOy at Central Los Angeles better than the NOy at Riverside. The model is able to capture the higher values (>20 ppbv) of daily NOy at the station of Central Los Angeles. While the model underpredicts higher NOy days at the station in Riverside.

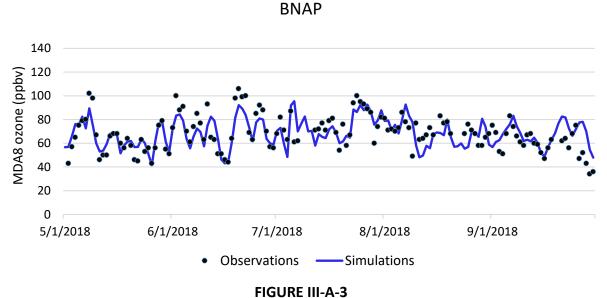








2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT AZUSA



2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT BANNING



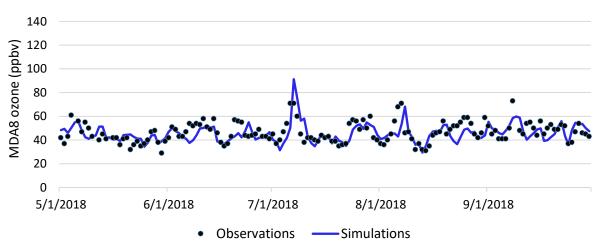


FIGURE III-A-4 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT CENTRAL LOS ANGELES



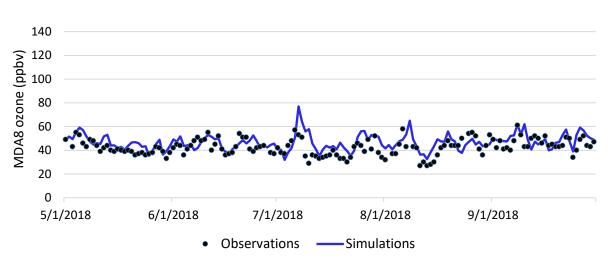
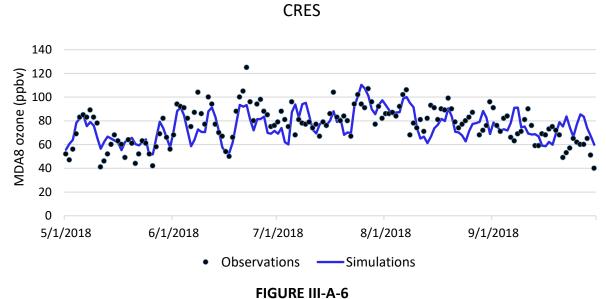


FIGURE III-A-5

### 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT COMPTON



2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT CRESTLINE

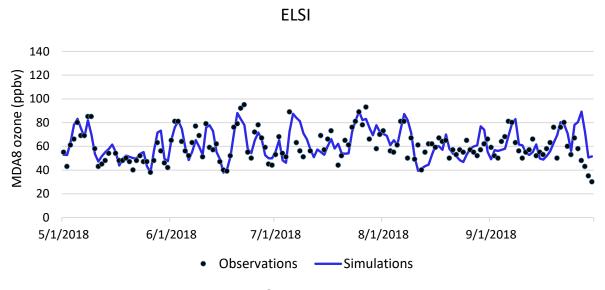


FIGURE III-A-7 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT LAKE ELSINORE



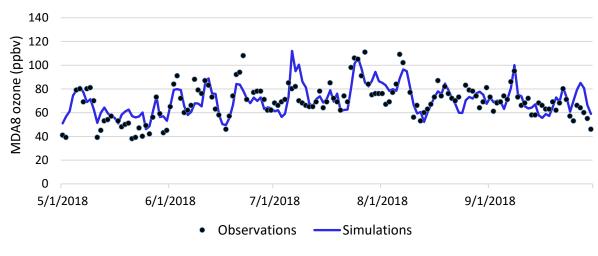
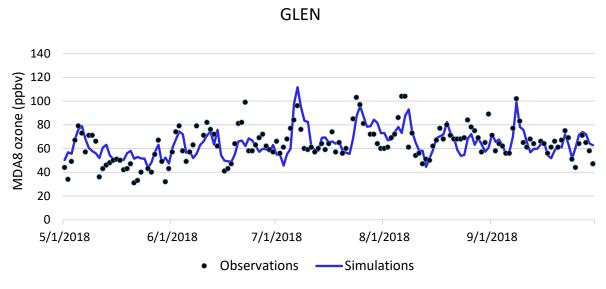
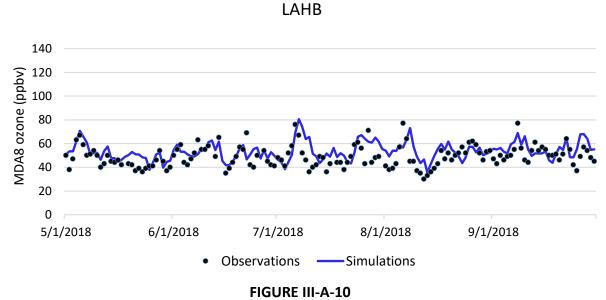


FIGURE III-A-8 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT FONTANA







2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT LA HABRA

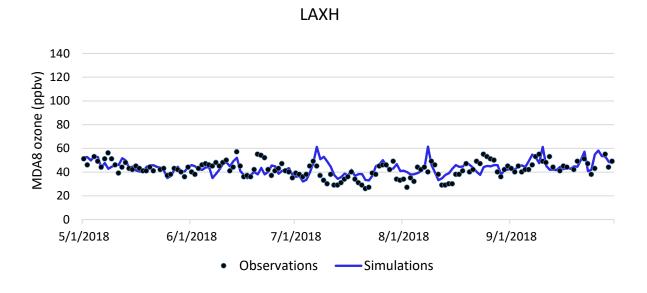
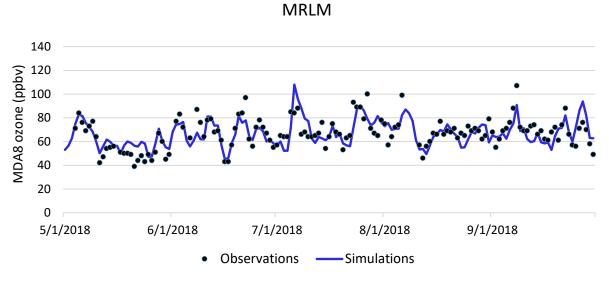


FIGURE III-A-11 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT LAX

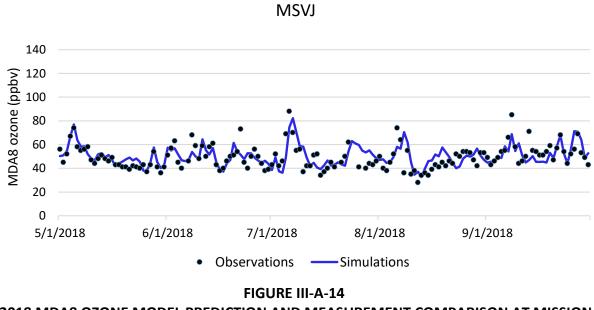
LGBH

140 120 MDA8 ozone (ppbv) 100 80 60 40 20 0 5/1/2018 6/1/2018 8/1/2018 9/1/2018 7/1/2018 Observations ——Simulations ٠

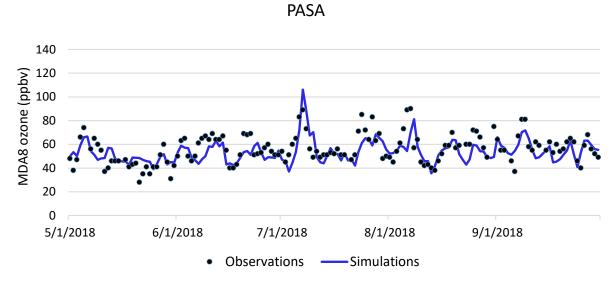
FIGURE III-A-12 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT LONG BEACH HUDSON







2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT MISSION VIEJO



#### 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT PASADENA

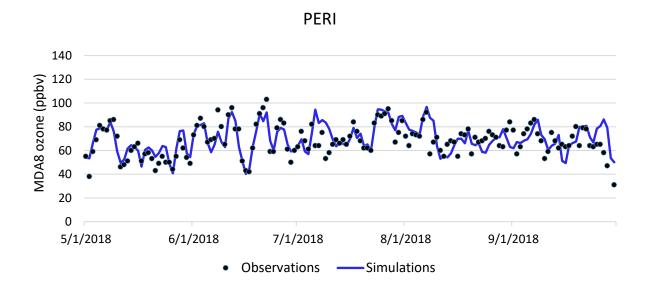
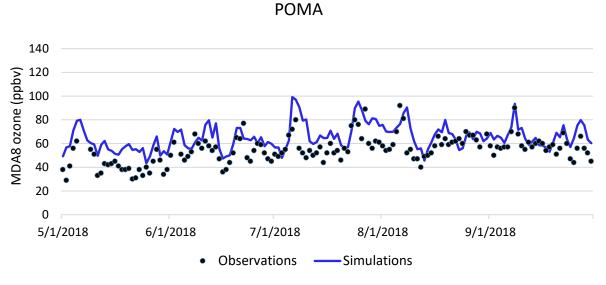
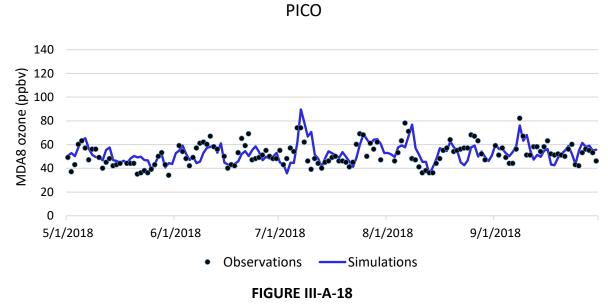


FIGURE III-A-16 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT PERRIS







2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT PICO RIVERA

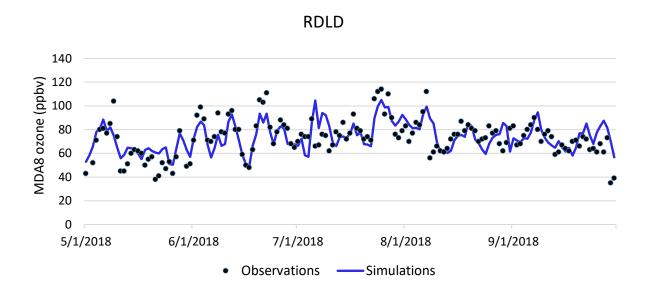
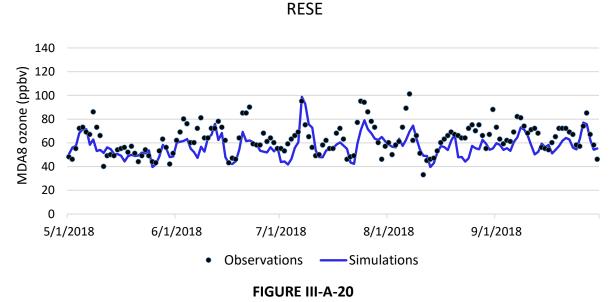
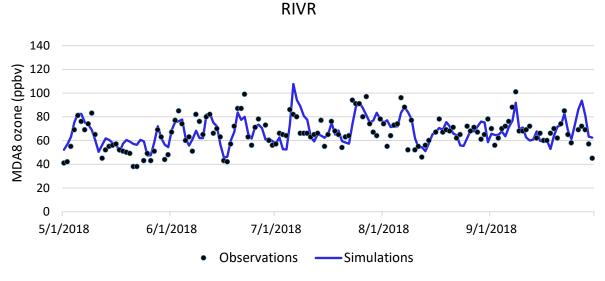


FIGURE III-A-19 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT REDLANDS



2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT RESEDA





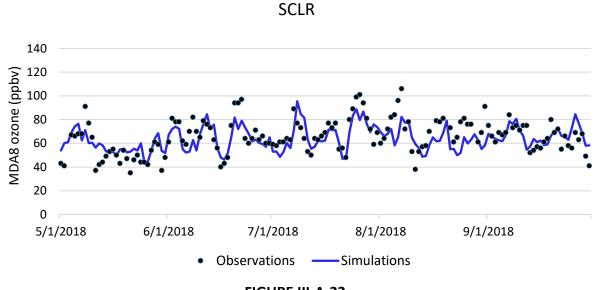


FIGURE III-A-22 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT SANTA CLARITA

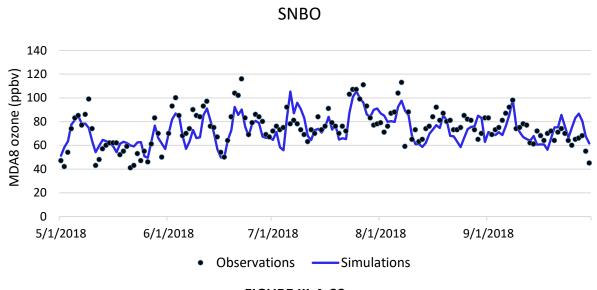


FIGURE III-A-23 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT SAN BERNARDINO

TMCA

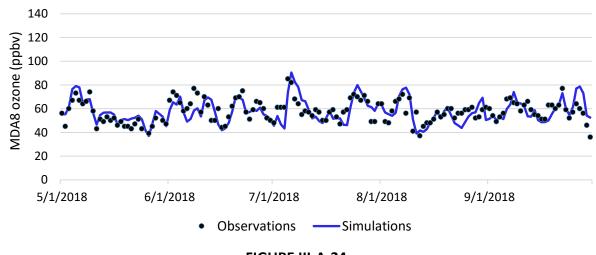
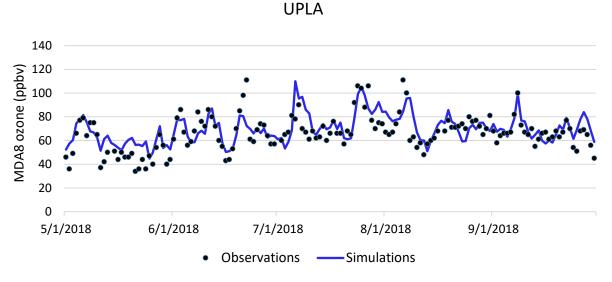


FIGURE III-A-24 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT TEMECULA





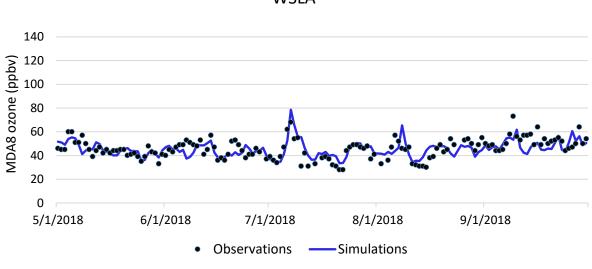


FIGURE III-A-26 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT WEST LOS ANGELES

WSLA

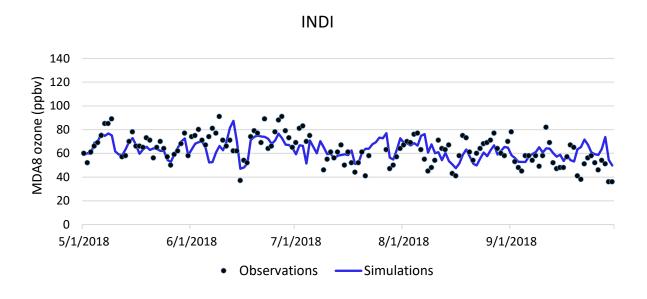


FIGURE III-A-27 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT INDIO

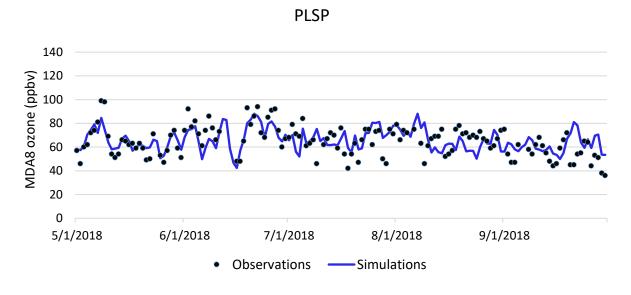


FIGURE III-A-28 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT PALM SPRINGS

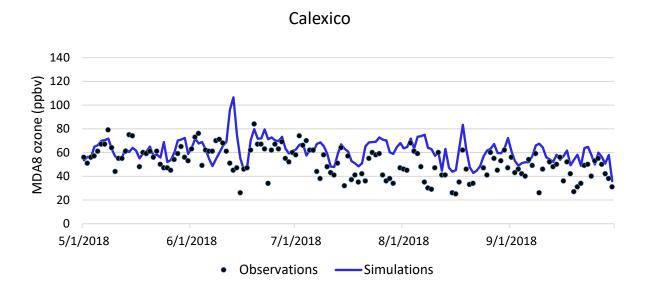


FIGURE III-A-29 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT CALEXICO

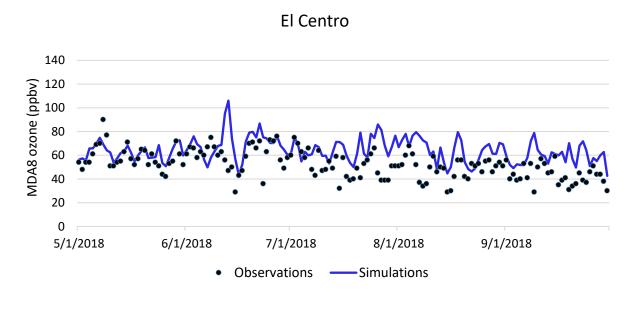


FIGURE III-A-30 2018 MDA8 OZONE MODEL PREDICTION AND MEASUREMENT COMPARISON AT EL CENTRO

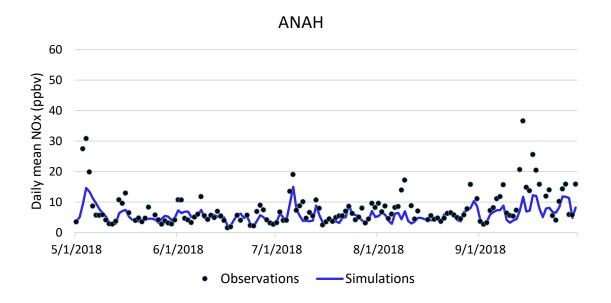


FIGURE III-B-1 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT ANAHEIM

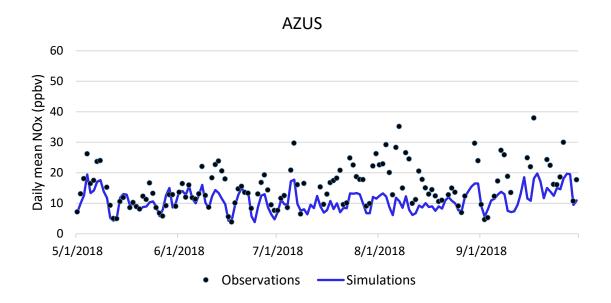


FIGURE III-B-2 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT AZUSA

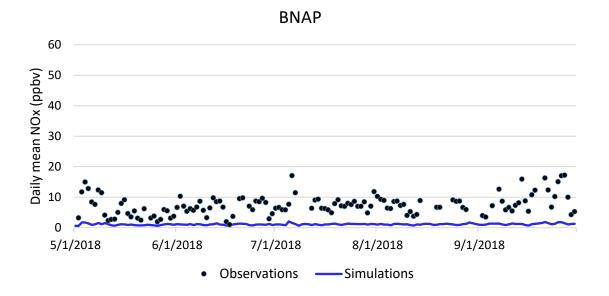


FIGURE III-B-3 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT BANNING

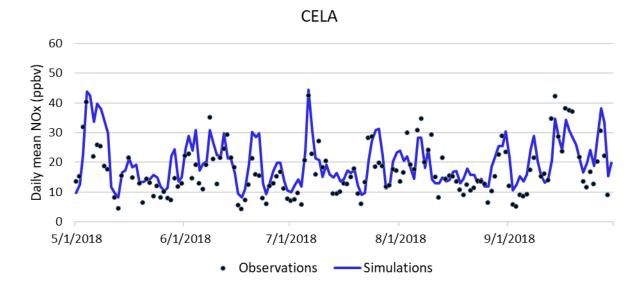


FIGURE III-B-4 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT CENTRAL LOS ANGELES

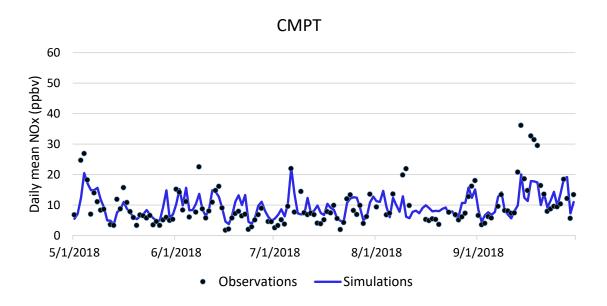


FIGURE III-B-5 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT COMPTON

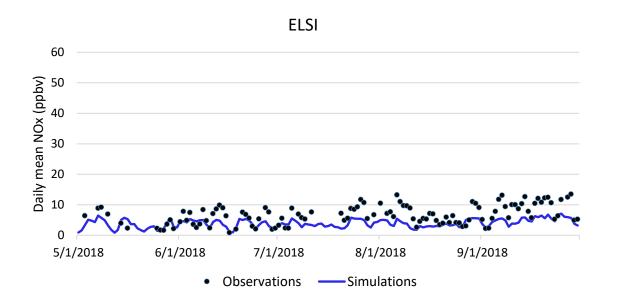


FIGURE III-B-6 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT LAKE ELSINORE

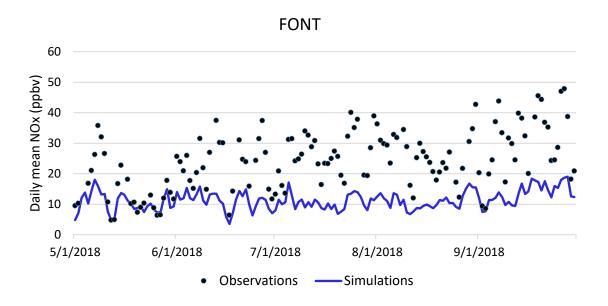


FIGURE III-B-7 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT FONTANA

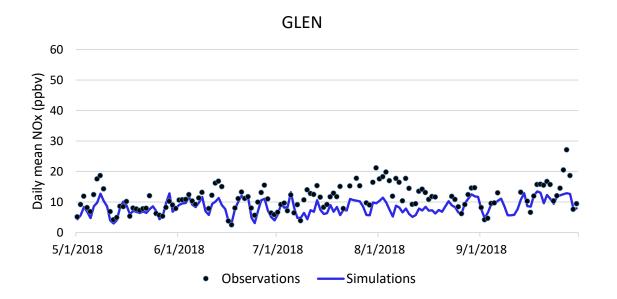


FIGURE III-B-8 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT GLENDORA

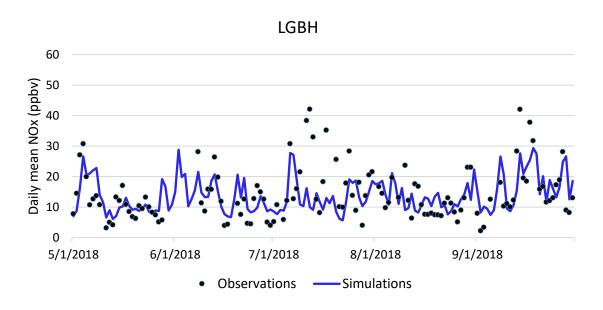


FIGURE III-B-9 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT LONG BEACH (HUDSON)

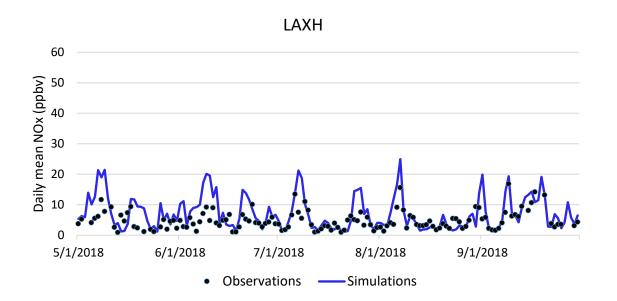


FIGURE III-B-10 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT LAX

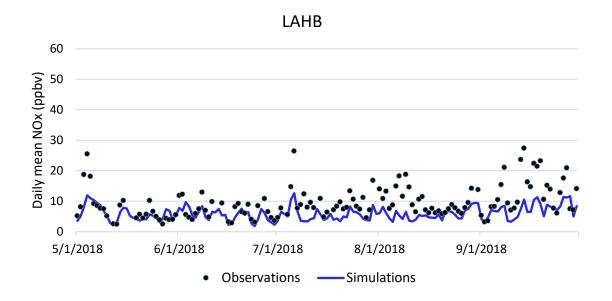


FIGURE III-B-11 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT LA HABRA

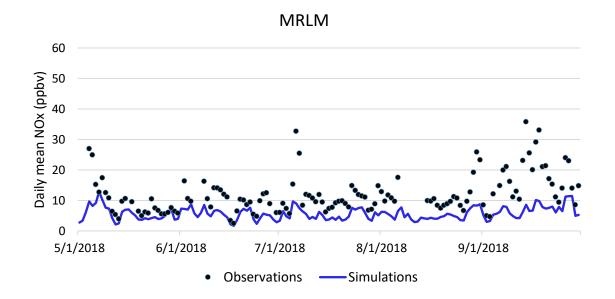


FIGURE III-B-12 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT MIRA LOMA VAN BUREN

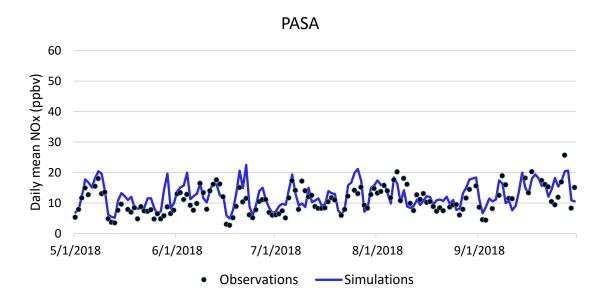


FIGURE III-B-13 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT PASADENA

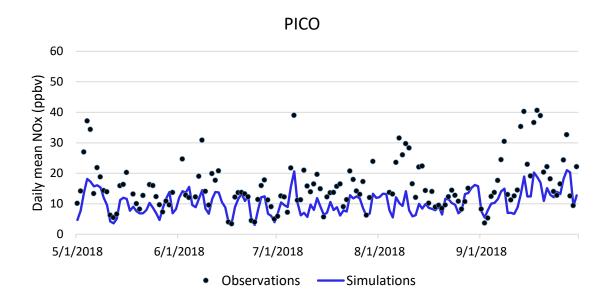


FIGURE III-B-14 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT PICO RIVERA

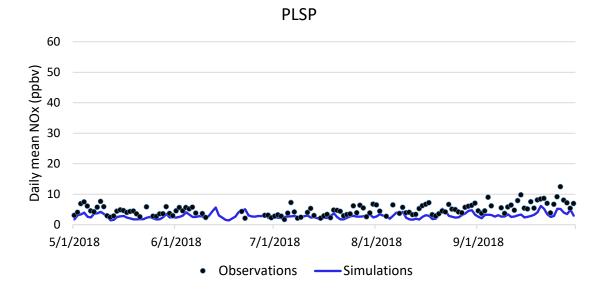


FIGURE III-B-15 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT PALM SPRINGS

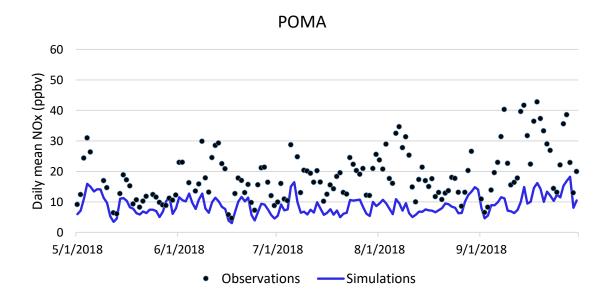


FIGURE III-B-16 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT POMONA

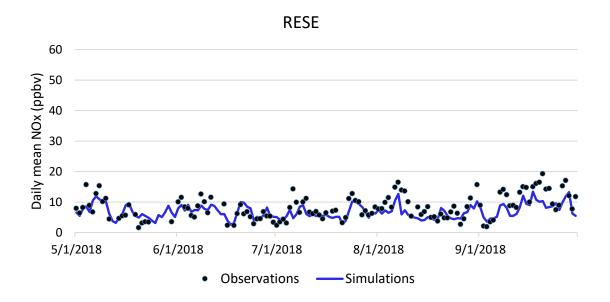


FIGURE III-B-17 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT RESEDA

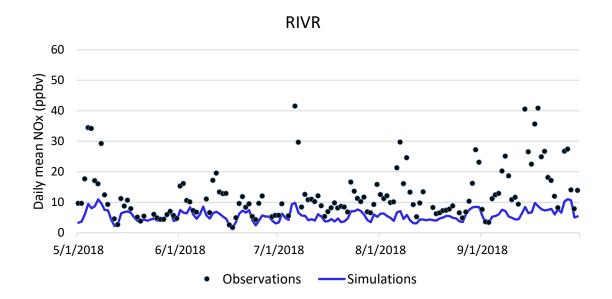


FIGURE III-B-18 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT RIVERSIDE

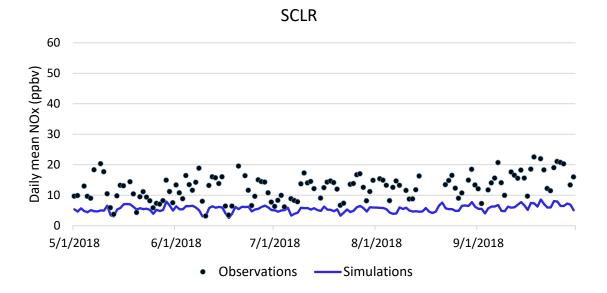


FIGURE III-B-19 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT SANTA CLARITA

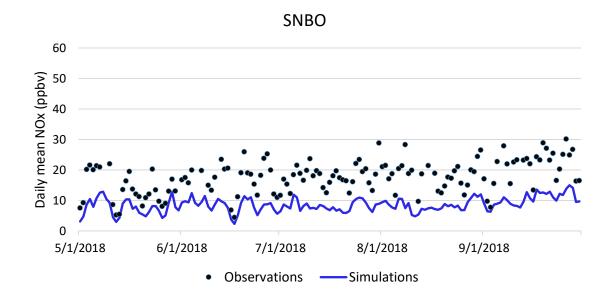


FIGURE III-B-20 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT SAN BERNARDINO

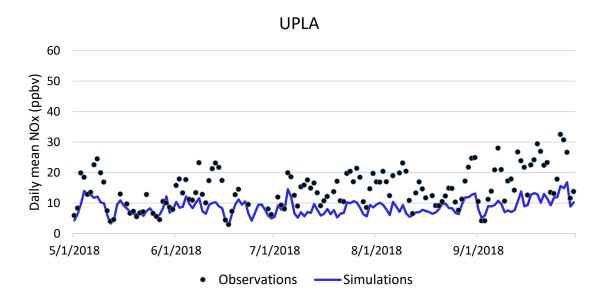


FIGURE III-B-21 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT UPLAND

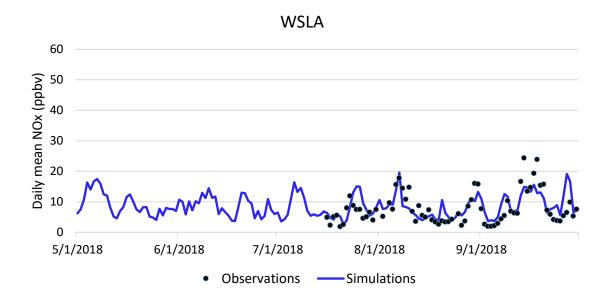


FIGURE III-B-22 2018 DAILY AVERAGED NOX MODEL PREDICTION AND MEASUREMENT COMPARISON AT WEST LOS ANGELES

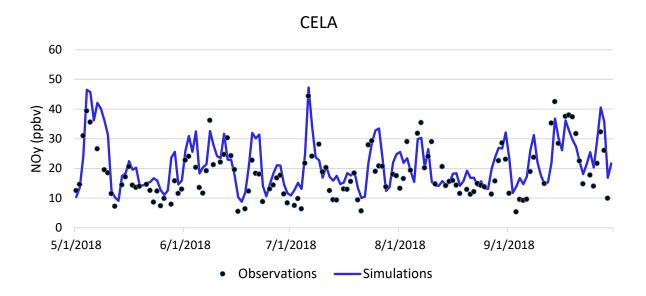


FIGURE III-C-1 2018 DAILY AVERAGED NOY MODEL PREDICTION AND MEASUREMENT COMPARISON AT CENTRAL LOS ANGELES

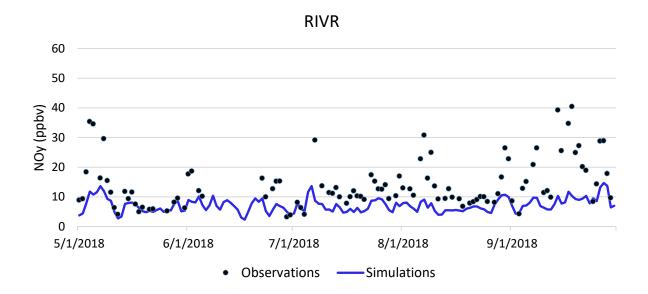


FIGURE III-C-2 2018 DAILY AVERAGED NOY MODEL PREDICTION AND MEASUREMENT COMPARISON AT RIVERSIDE

# CMAQ Model Performance – Diurnal Variation

Figures III-D1 to III-D28 show the hourly boxplots for the seasonal composed 1-Hour ozone concentrations for 28 stations. These plots are called Tukey boxplots. The box is drawn between the 25th (Q1) and 75th (Q3) percentiles, with a horizontal line drawn in the middle indicating the median. The whiskers extend above and below the box to the most extreme data points that are within a distance to the box equal to 1.5 times the interquartile range, i.e.  $1.5 \times (Q3 - Q1)$ . Points outside the whiskers' ranges indicating outliers are plotted too. The diurnal variation of 1-Hour ozone for each station is reproduced by the model generally well. The peak values of hourly ozone usually appear between 12:00 to 16:00 PST. The model is also able to capture the differences in peak times across the basin, with stations in the western part of the basin peaking earlier, like Central Los Angeles and Anaheim, and stations in the eastern part of the basin and Coachella Valley peaking later in the day.

Figures III-E1 to III-E22 show the hourly boxplots for seasonal composed 1-Hour NOx concentrations for 22 stations. Both model and observations display similar diurnal variations for the 1-Hour NOx concentrations. Mostly the higher values of NOx observed between 05:00 - 9:00 PST, and the lower values of NOx observed between 14:00 - 16:00 PST are well reproduced by the model. However, the model underestimates the high NOx peaks during the morning rush hours in many stations.

Figures III-F1 to III-F2 represent the seasonal composed 1-Hour NOy for the two stations – Central Los Angeles and Riverside. The daily maximum values appear in the early morning (5:00 - 7:00 PST) and the minimum values appear in the afternoon (14:00 - 17:00 PST). The contrast between the higher NOy concentration over Central Los Angeles – representative of an urban emission source area – and the lower NOy concentration over Riverside – representative of an urban emission receptor area – are well predicted by the model, although the model underestimates the concentration of NOy in Riverside during the morning rush hours.



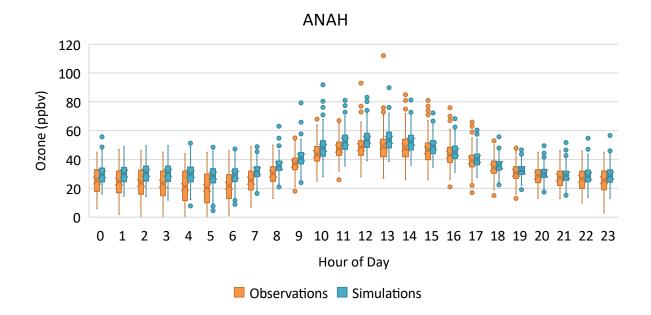


FIGURE III-D-1 BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT ANAHEIM. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

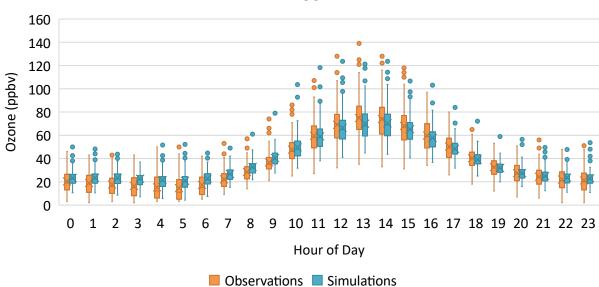
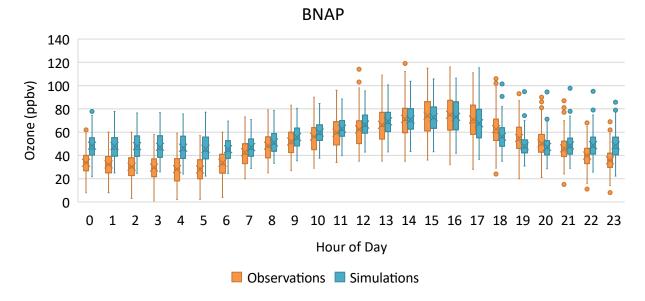
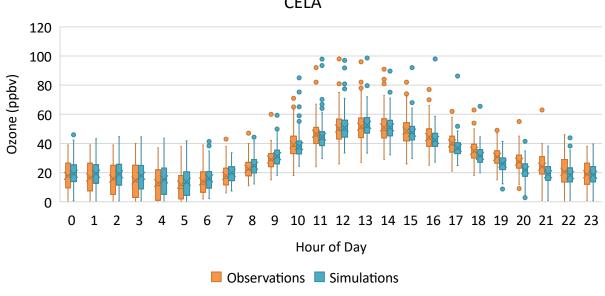


FIGURE III-D-2 BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT AZUSA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

AZUS



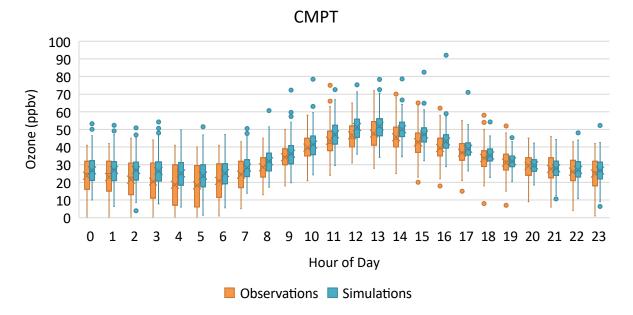
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT BANNING. HORIZONTAL LINES INDICATE 25TH, 50TH (MEDIAN), AND 75TH PERCENTILES.



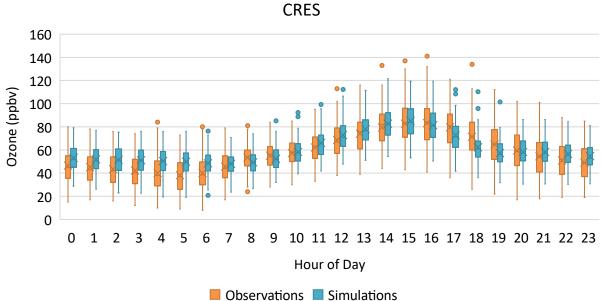
CELA

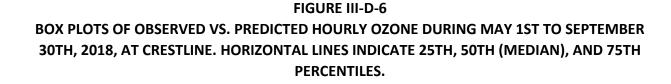


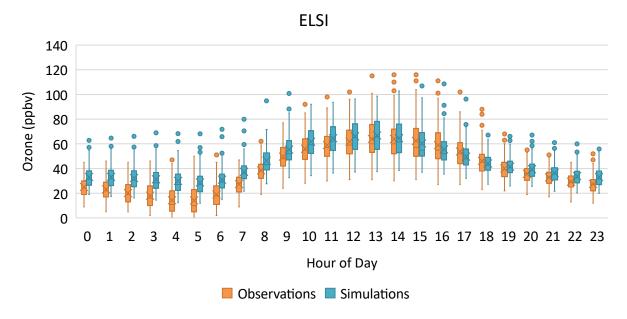
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT CENTRAL LOS ANGELES. HORIZONTAL LINES INDICATE 25TH, 50TH (MEDIAN), AND 75TH PERCENTILES.



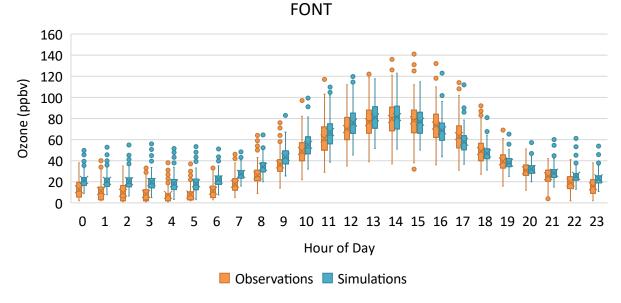
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT COMPTON. HORIZONTAL LINES INDICATE 25TH, 50TH (MEDIAN), AND 75TH PERCENTILES.







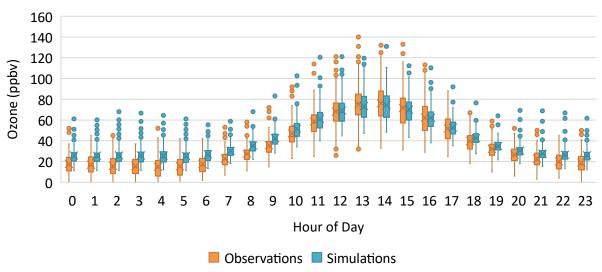
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT LAKE ELSINORE. HORIZONTAL LINES INDICATE 25TH, 50TH (MEDIAN), AND 75TH PERCENTILES.



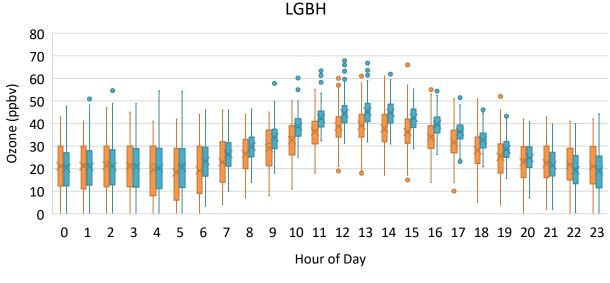


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT FONTANA. HORIZONTAL LINES INDICATE 25TH, 50TH (MEDIAN), AND 75TH PERCENTILES.





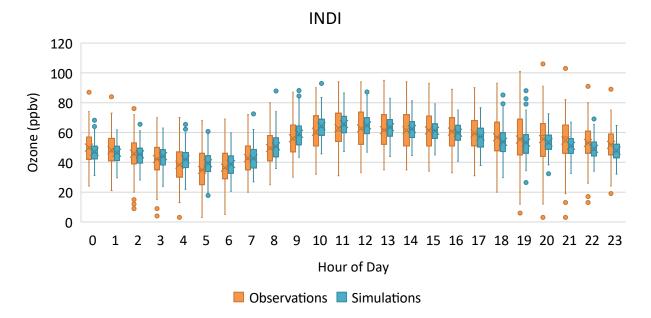
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT GLENDORA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



Observations Simulations



BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT HUDSON. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT INDIO. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

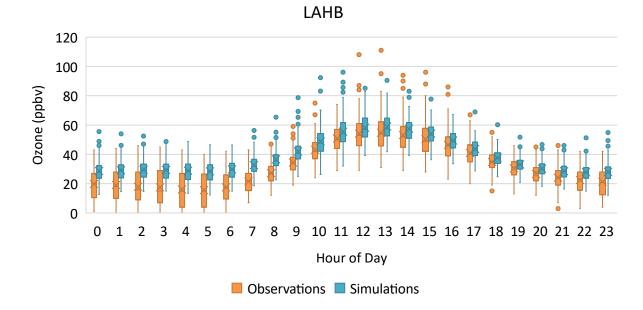
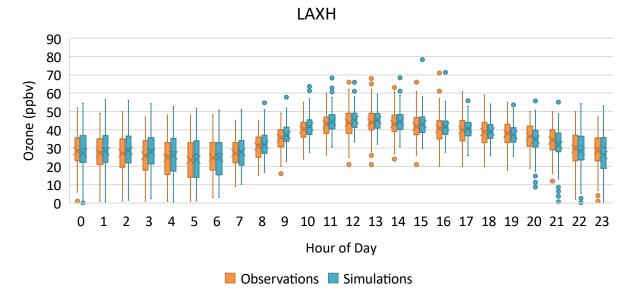
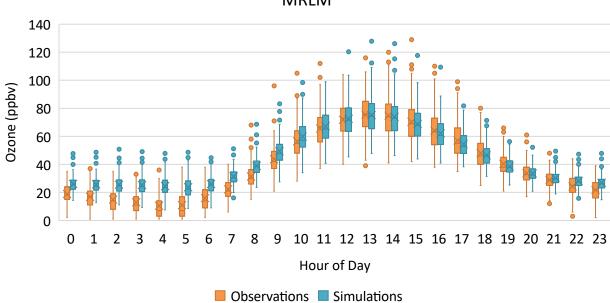


FIGURE III-D-12 BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT LA HABRA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES

III-55



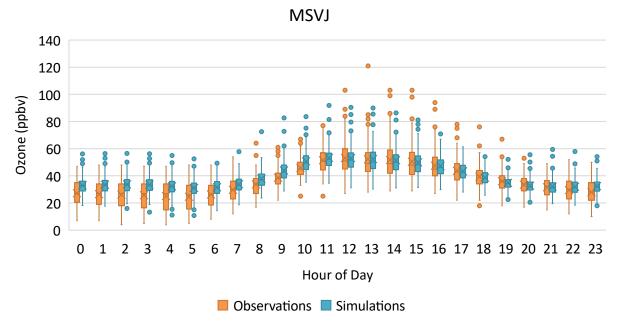
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT LAX. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



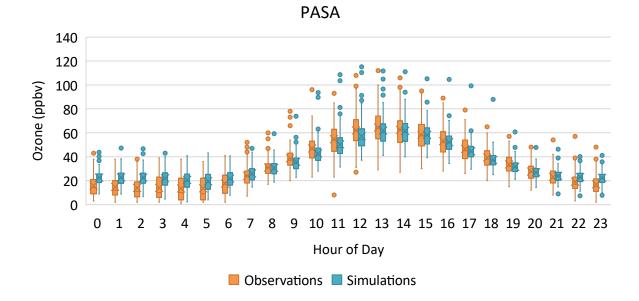
MRLM

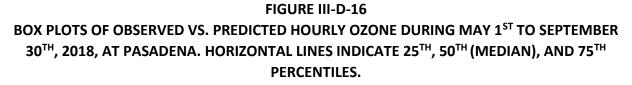
FIGURE III-D-14

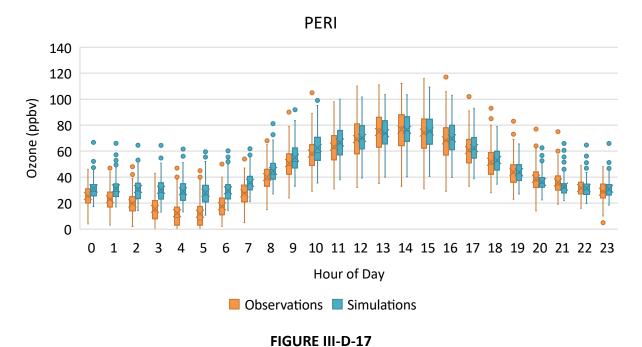
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT MIRA LOMA VAN BUREN. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT MISSION VIEJO. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

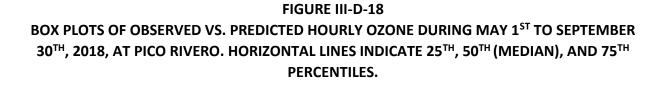


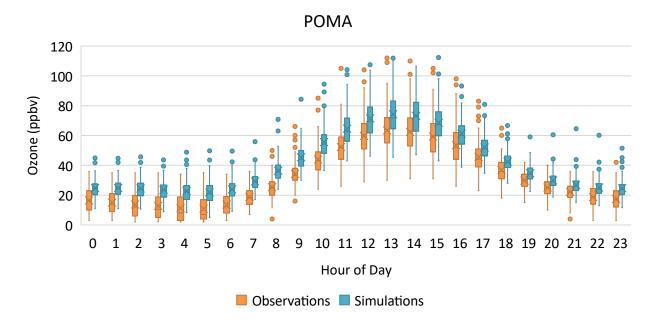




BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT PERRIS. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

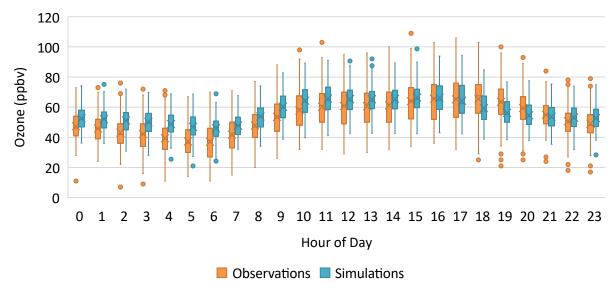
PICO Ozone (ppbv) 10 11 12 13 14 15 16 17 18 19 20 21 22 23 Hour of Day Observations Simulations





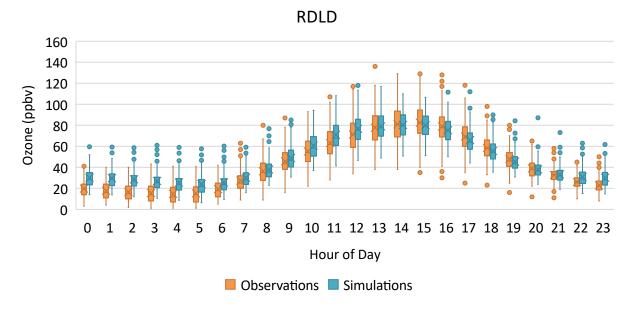
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT POMONA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

PLSP

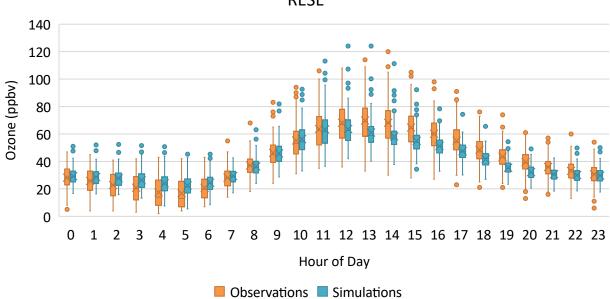


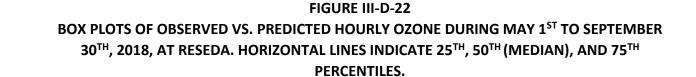
#### FIGURE III-D-20

BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT PALM SPRINGS. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

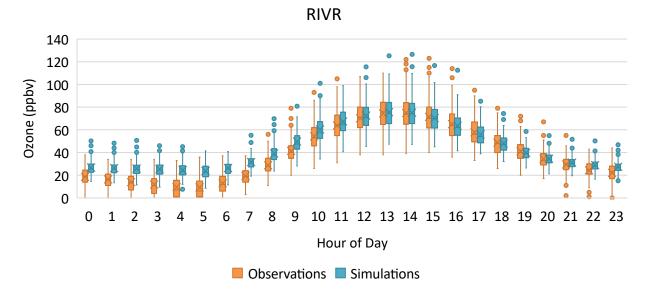


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT REDLANDS. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

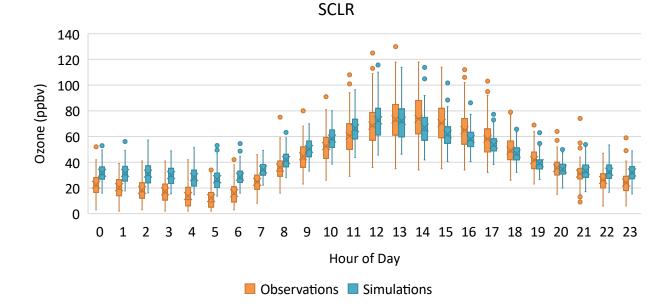


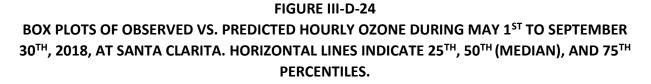


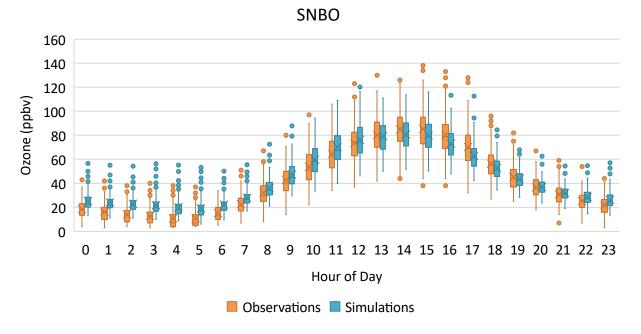
RESE



BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT RIVERSIDE. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

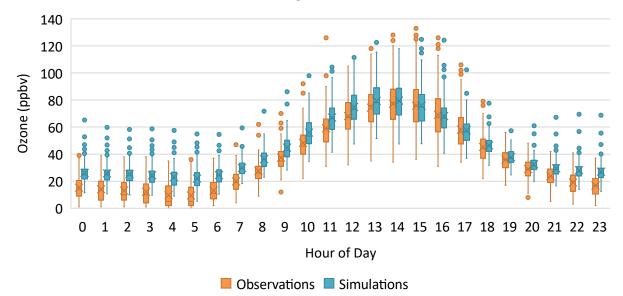


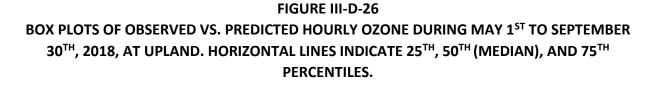


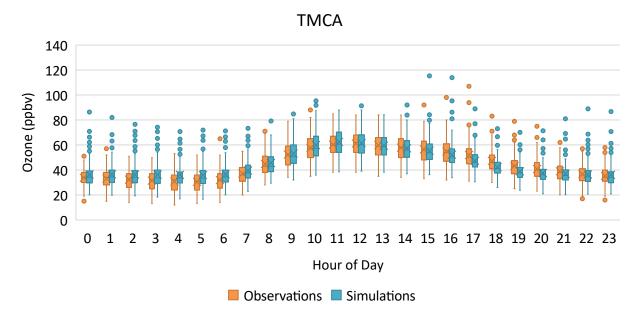


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT SAN BERNARDINO. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

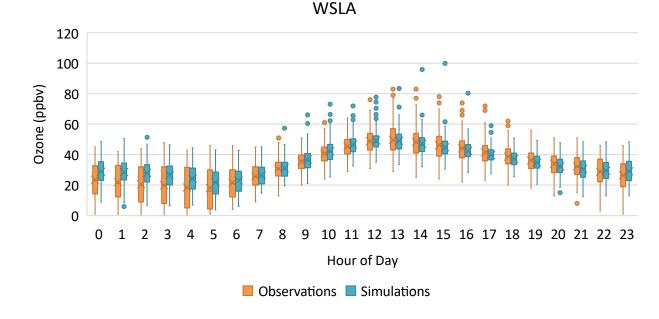






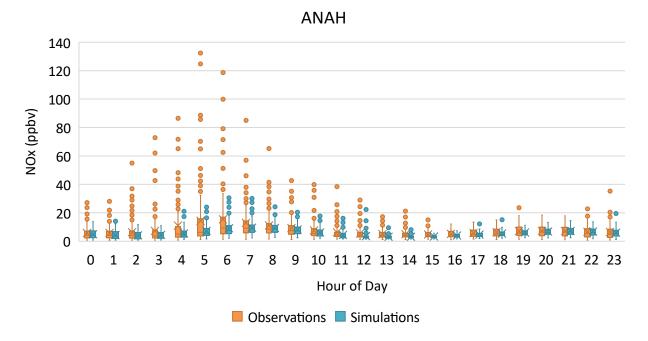


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT TEMACULA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



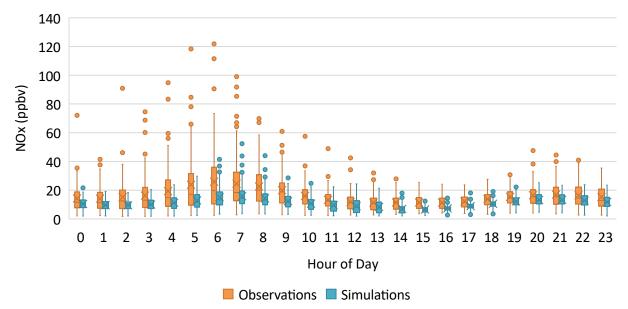


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY OZONE DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT WEST LOS ANGELES. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



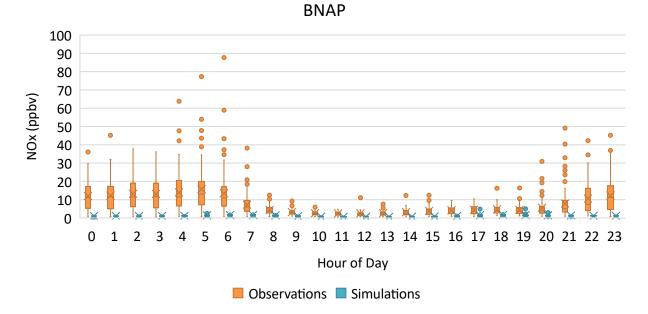
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT ANAHEIM. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

AZUS



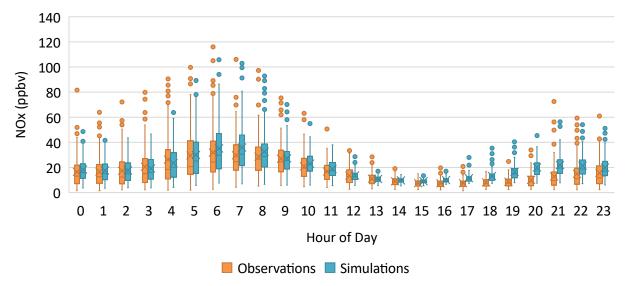


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT AZUSA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



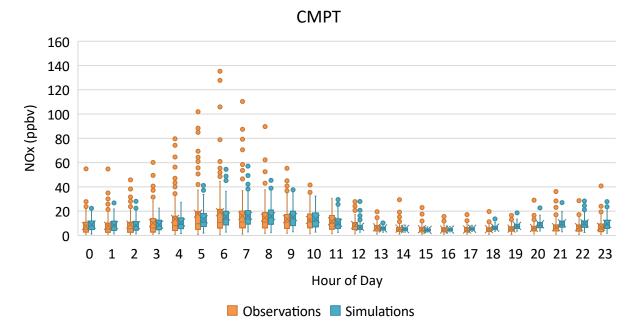
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT BANNING. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.







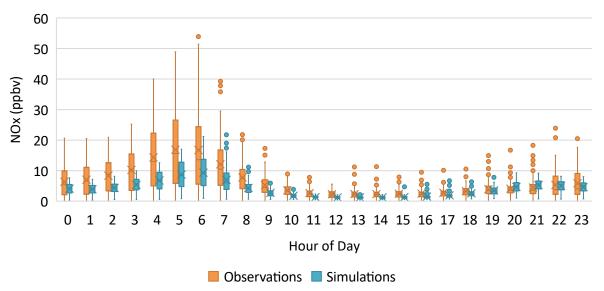
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT CENTRAL LOS ANGELES. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

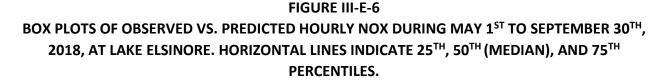


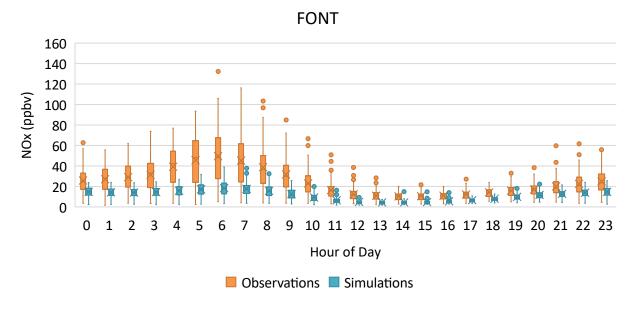


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT COMPTON. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.





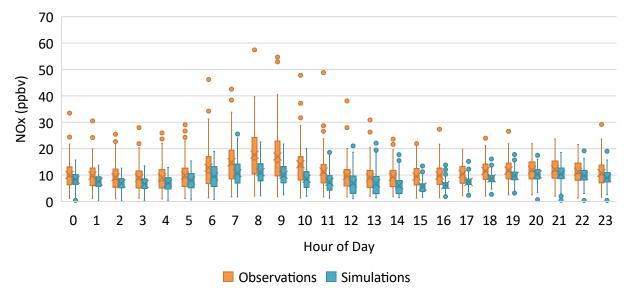


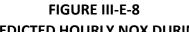




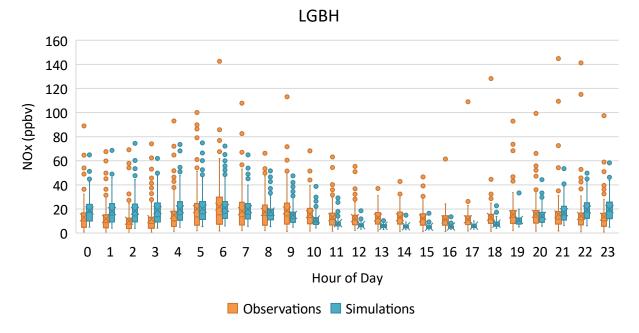


GLEN



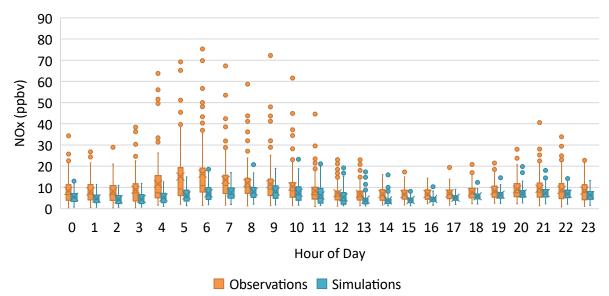


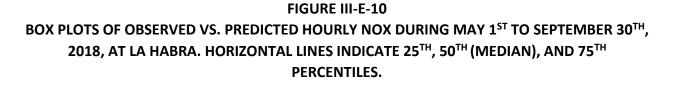
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT GLENDORA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

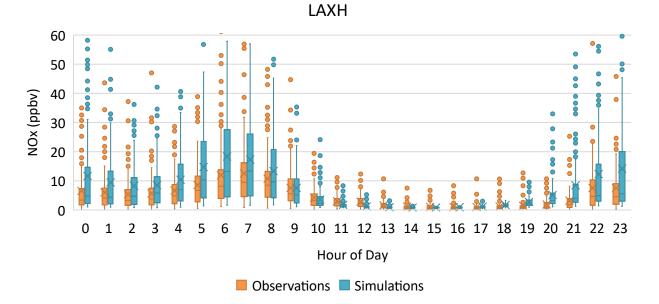


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT LONG BEACH HUDSON. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.









BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT LAX. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

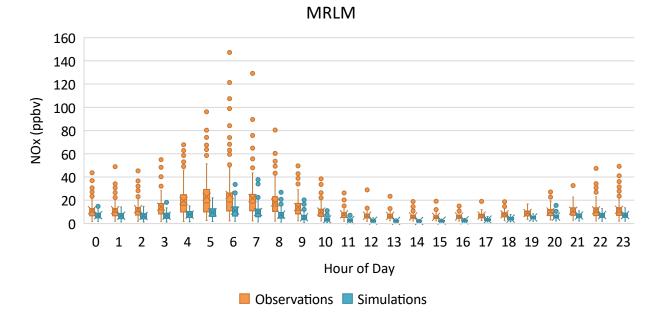
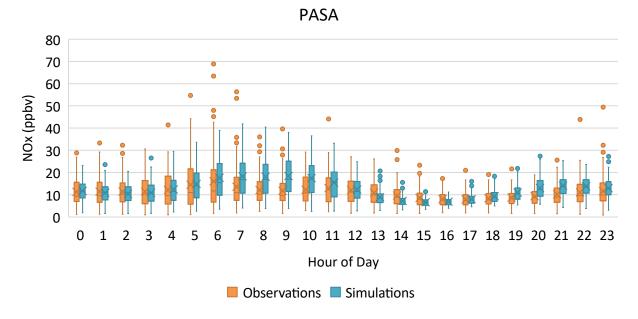
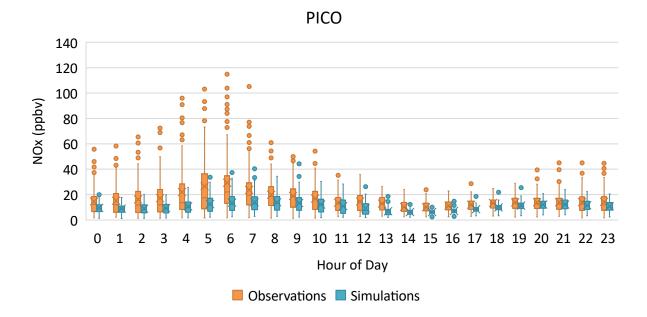


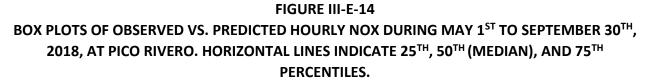
FIGURE III-E-12

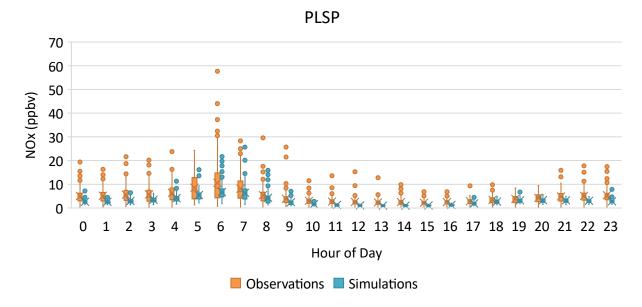
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT MIRA LOMA VAN BUREN. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



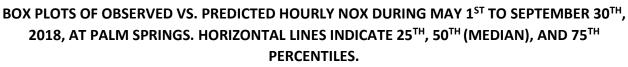
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT PASADENA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

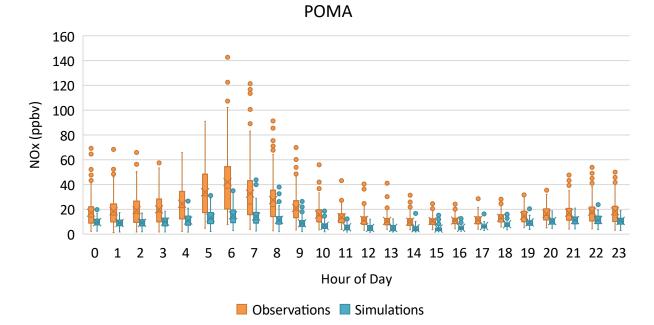


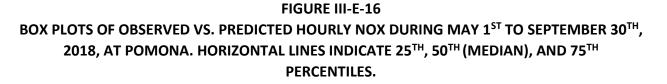


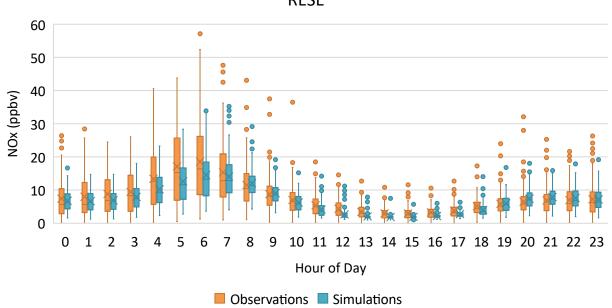






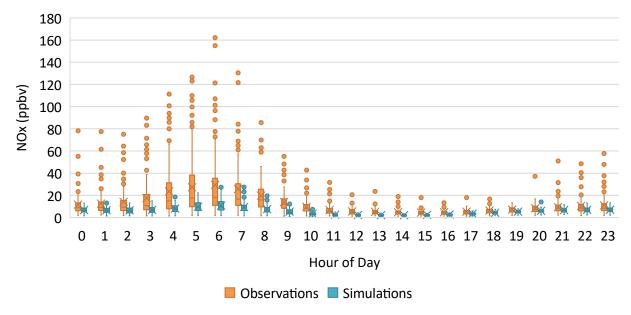


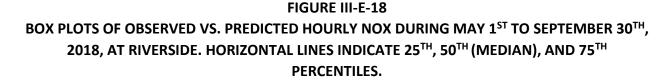




BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT RESEDA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

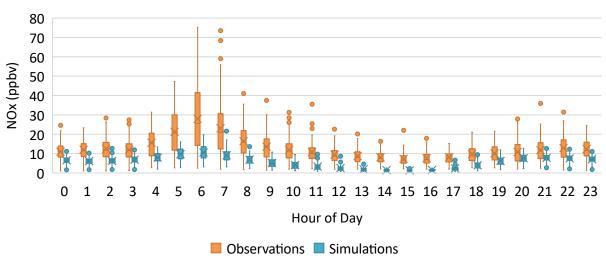
RIVR



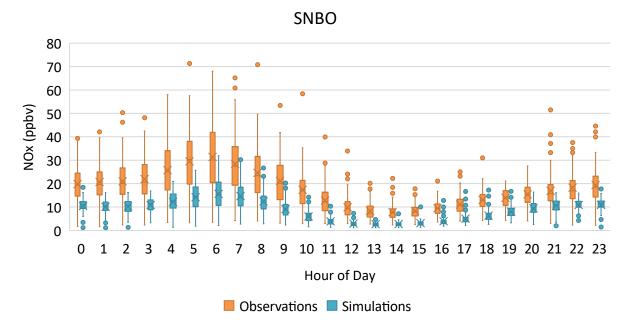


RESE





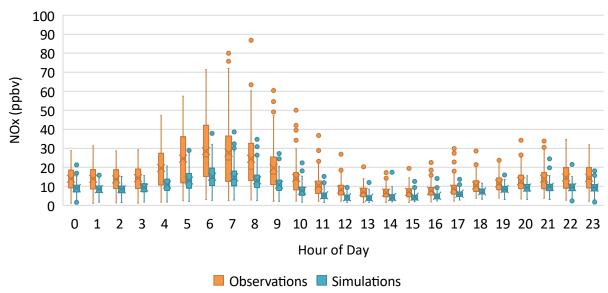
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT SANTA CLARITA. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



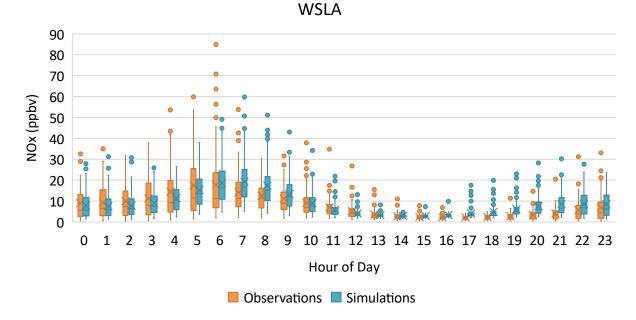
## FIGURE III-E-20

BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT SAN BERNARDINO. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



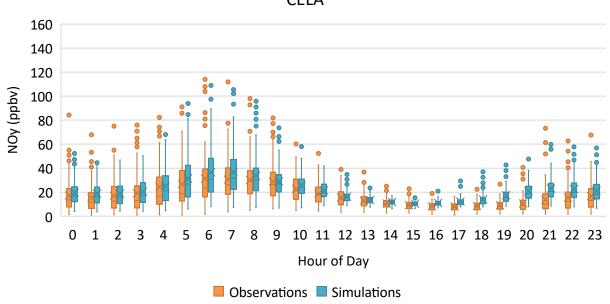


BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT UPLAND. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



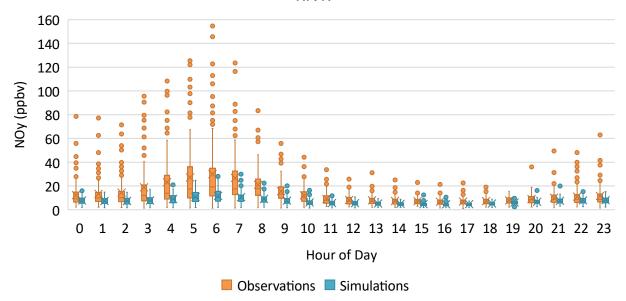
### FIGURE III-E-22

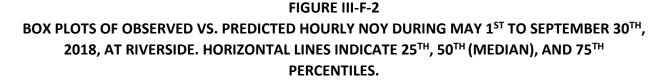
BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOX DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT WEST LOS ANGELES. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.



BOX PLOTS OF OBSERVED VS. PREDICTED HOURLY NOY DURING MAY 1<sup>ST</sup> TO SEPTEMBER 30<sup>TH</sup>, 2018, AT CENTRAL LOS ANGELES. HORIZONTAL LINES INDICATE 25<sup>TH</sup>, 50<sup>TH</sup> (MEDIAN), AND 75<sup>TH</sup> PERCENTILES.

RIVR



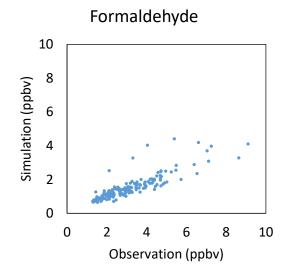


CELA

# CMAQ VOC Model Performance Scatter Plots

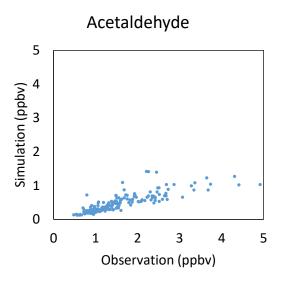
To assess model performance in simulating volatile organic carbon (VOC) concentrations across the South Coast Air Basin, modeled concentrations of total non-methane organic compounds (TNMOC) and individual VOC species during the ozone season of 2018 are compared to available measurements from selected stations in the modeling domain. VOC measurements used for this analysis include measurements of selected VOC species at seven stations (Burbank, Compton, Fontana, Hudson, Huntington Park, Long Beach and Pico Rivera) as part of the Multiple Air Toxics Exposure Study V (MATES V) monitoring campaign<sup>4</sup> and measurements of carbonyl and hydrocarbon species at three stations (Central Los Angeles, Riverside, El Cajon) in the Photochemical Assessment Monitoring Stations (PAMS) network. In 2018, both programs collected 24-hour samples on a 1-in-6 days schedule for VOC measurements.

Figures III G1-G14 show modeled versus measured concentrations of available individual VOC species and TNMOC. In general, modeled VOC concentrations are reasonably well correlated with measured values. However, in some cases, the model underpredicted measured ambient concentrations.

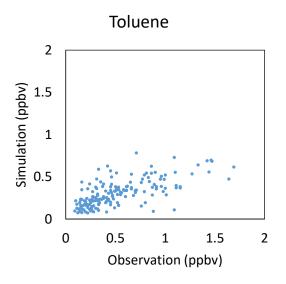


### FIGURE III-G-1 SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY FORMALDEHYDE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

<sup>&</sup>lt;sup>4</sup> The MATES V monitoring campaign was conducted from May 2018-April 2019, although measurements at some stations began several months earlier. All available data was included in this analysis.

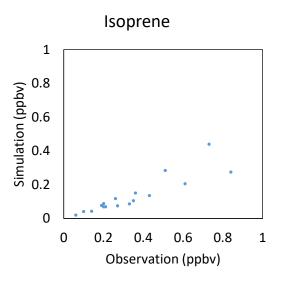


# SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY ACETYLENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS





SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY TOLUENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS





SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY ISOPRENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

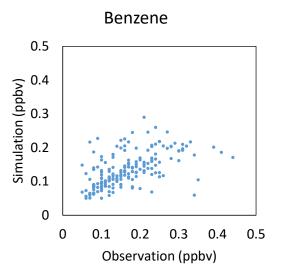
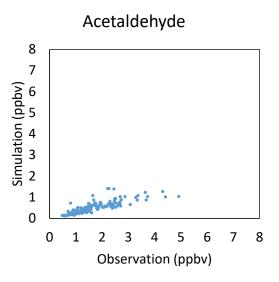
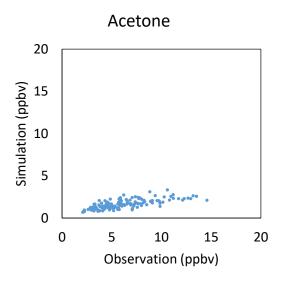


FIGURE III-G-5 SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY BENZENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

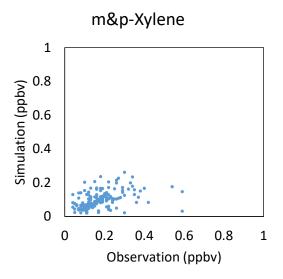


# SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY ACETALDEHYDE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS



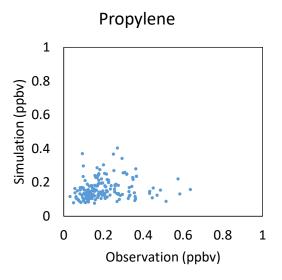


SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY ACETONE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS





SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY M&P-XYLENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS





SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY PROPYLENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

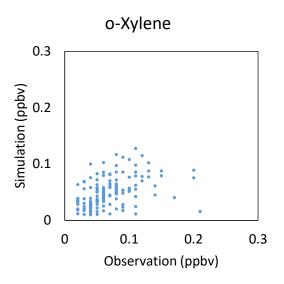


FIGURE III-G-10 SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY O-XYLENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

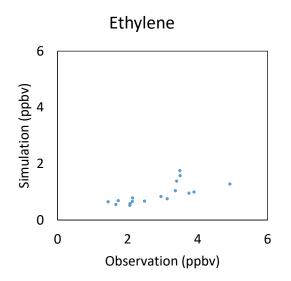
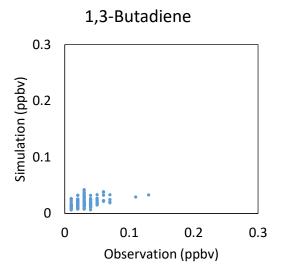


FIGURE III-G-11 SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY ETHYLENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS



#### FIGURE III-G-12

SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY 1,3-BUTADIENE DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

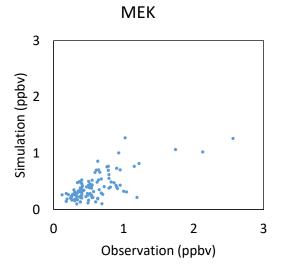


FIGURE III-G-13 SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY METHYL ETHYL KETONE (MEK) DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

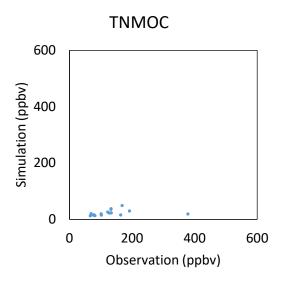


FIGURE III-G-14 SCATTER PLOT OF PREDICTED VS. OBSERVED CONCENTRATIONS OF DAILY TNMOC DURING MAY 1ST TO SEPTEMBER 30TH, 2018, AT ALL AVAILABLE STATIONS

#### ATTACHMENT C



#### SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

#### PROJECT TITLE: COACHELLA VALLEY ATTAINMENT PLAN FOR THE 2008 8-HOUR OZONE STANDARD

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties. The Notice of Exemption will also be electronically filed with the State Clearinghouse of the Governor's Office of Planning and Research for posting on their CEQAnet Web Portal which may be accessed via the following weblink: <u>https://ceqanet.opr.ca.gov/search/recent</u>. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: <u>http://www.aqmd.gov/nav/about/public-notices/ceqanotices/notices-of-exemption/noe---year-2024</u>.

#### NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

To:	County Clerks for the Counties of Los Angeles,	From:	South Coast Air Quality Management District
	Orange, Riverside and San Bernardino; and		21865 Copley Drive
	Governor's Office of Planning and Research –		Diamond Bar, CA 91765
	State Clearinghouse		

Project Title: Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard (Coachella Valley Ozone Plan)

**Project Location:** The location of the proposed project is the portion of the South Coast Air Quality Management District (South Coast AQMD) jurisdiction covering the federal nonattainment area known as the Coachella Valley, which consists of the Riverside County portion of the Salton Sea Air Basin, excluding tribal lands.

**Description of Nature, Purpose, and Beneficiaries of Project:** In November 2022, South Coast AQMD requested that the United States Environmental Protection Agency (U.S. EPA) reclassify the Coachella Valley from "severe-15" to "extreme" nonattainment for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS) with a new attainment date of July 20, 2032. The reclassification requires a State Implementation Plan (SIP) revision to address new requirements associated with the reclassification. The Coachella Valley Ozone Plan has been developed to satisfy those requirements and includes: 1) ozone precursors emissions inventory for base year, 2018 and future milestone years; 2) a strategy to demonstrate attainment by continued implementation of adopted rules and regulations; 3) a demonstrate attainment of the 2008 8-hour ozone standard in Coachella Valley by 2031. Implementation of the Coachella Valley Ozone Plan will result in emission reductions of 12.5 and 1.9 tons per day, of nitrogen oxides (NOX) and volatile organic compounds (VOC) respectively, from 2018 base year to the 2031 attainment scenario in the Coachella Valley.

South Coast Air Quality Management District South Coast Air Quality Management District	Public Agency Approving Project:	Agency Carrying Out Project:	
	South Coast Air Quality Management District	South Coast Air Quality Management District	

#### **Exempt Status:**

CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption

CEQA Guidelines Section 15308 - Actions by Regulatory Agencies for Protection of the Environment

**Reasons why project is exempt:** South Coast AQMD, as Lead Agency, has reviewed the proposed project (Coachella Valley Ozone Plan) pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. Since the South Coast AQMD is proposing an attainment strategy which relies on the continued implementation of previously adopted rules and regulations and does not propose new requirements which will result in additional physical modifications, no adverse environmental impacts are expected. Thus, it can be seen with certainty that there is no possibility that the proposed project may cause a significant adverse effect on the environment. Therefore, the proposed project is exempt from CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. The proposed project is also categorically exempt because it is intended to further protect or enhance the environment. Further, there is no substantial evidence indicating that any of the exceptions set forth in CEQA Guidelines Section 15300.2 – Exceptions apply to the proposed project.

#### **Date When Proposed Project Will Be Considered for Approval (subject to change):** South Coast AOMD Governing Board Public Hearing: October 4, 2024

<b>CEQA Contact Person:</b>	Phone Number:	Email:	Fax:
Farzaneh Khalaj, Ph.D.	(909) 396-3022	<u>fkhalaj@aqmd.gov</u>	(909) 396-3982
<b>Proposed Project Contact Person:</b>	Phone Number:	Email:	Fax:
Eric Praske, Ph.D.	(909) 396-2948	epraske@aqmd.gov	(909) 396-3982

Date Received for Filing:	Signature:	(Signed and Dated Upon Board Approval)
		Kevin Ni
		Program Supervisor CEOA

Planning, Rule Development, and Implementation

# Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard

**Board Meeting** 

## October 4, 2024



# Outline

Background and Ozone Air Quality in Coachella Valley

Attainment Status

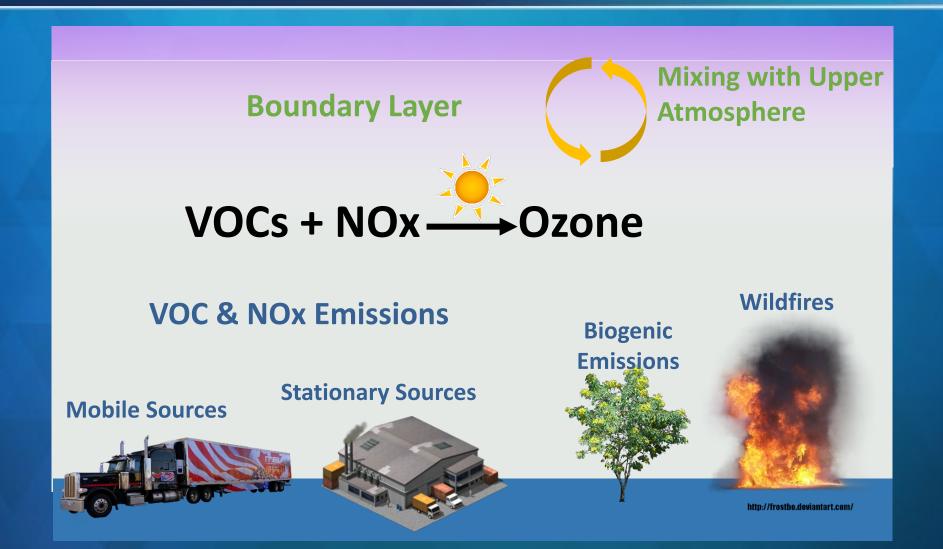
**Control Strategy** 

**Attainment Demonstration** 

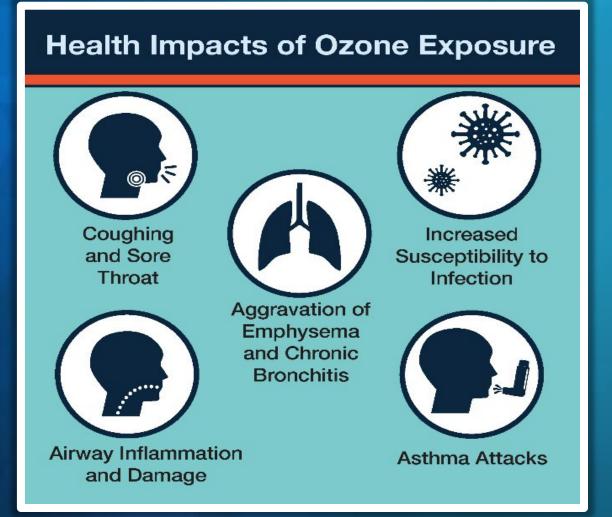
**Public Process** 

Next Steps

## **Ozone Formation**

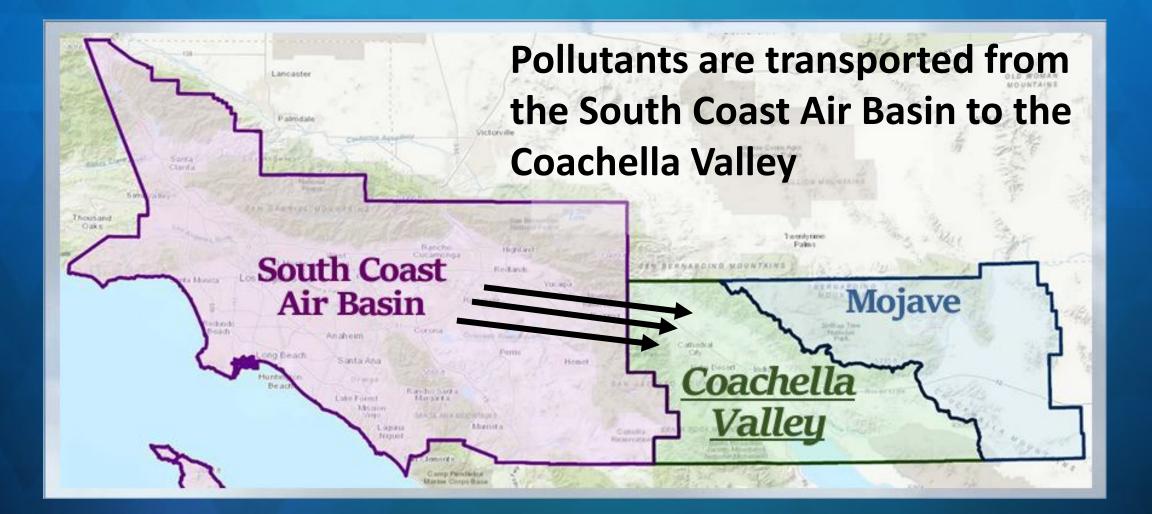


## Ozone Health Effects

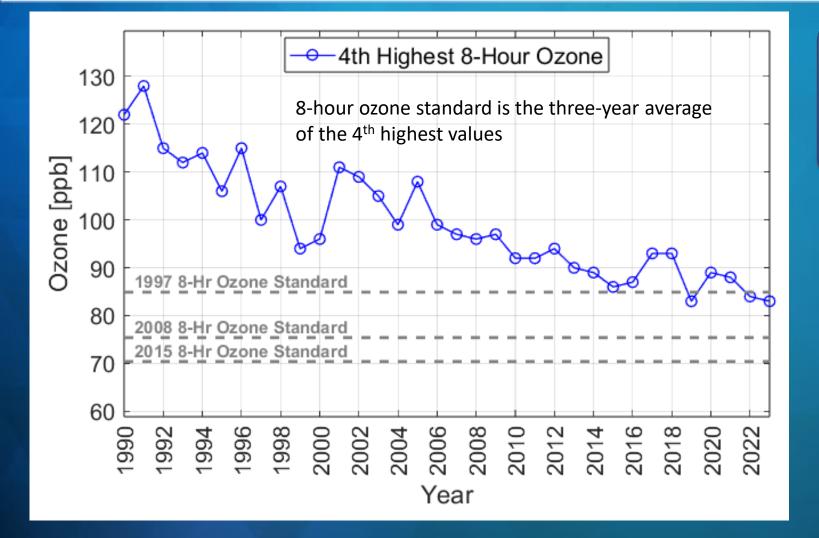


- The National Ambient Air Quality Standards (NAAQS) are healthbased standards.
- Ozone exposure is associated with adverse health impacts, including respiratory inflammation and worsening asthma symptoms

# Ozone Transport into the Coachella Valley



## Ozone Air Quality in Coachella Valley



## Coachella Valley ozone levels have been improved significantly

Ozone Standard	Attainment Year
1997	2023
2008	2031
2015	2032*

\*Reclassification request to "extreme" nonattainment is pending U.S. EPA's approval and would extend the attainment year to 2037

# Overview of SIP Actions for the 2008 8-Hour Ozone Standard

#### <u>Ozone</u> <u>Nonattainment</u> Classifications



Coachella Valley was originally classified as a "severe" nonattainment area, with attainment by 2026. U.S. EPA approved South Coast AQMD's request to bump-up Coachella Valley to "extreme" nonattainment in March 2023.

A new SIP addressing "extreme" area requirements is due to U.S. EPA by October 7, 2024.

## Implications of Reclassification

- Federal Clean Air Act and subsequent U.S. EPA regulations describe reclassification process
  - Attainment deadline extended to 2031
  - An update to the Air Quality Management Plan must be prepared
    - Must include 15 elements



## Strategy to Attain 2008 8-Hour Ozone Standard: Relies on Phase-In of Previously Adopted Rules



Recently Adopted 2022 Air Quality Management Plan provides additional assurance that standard will be met on time

# South Coast AQMD Rules Contributing to Attainment







## Baseline Reductions

Rules adopted by October 2020 (e.g. Rules 1111 and 1113) and Rule 1109.1

## Other RECLAIM Landing Rules\*

Rules other than Rule 1109.1 that were adopted to implement the RECLAIM transition to a command-andcontrol structure (e.g., Rules 1110.2, 1118.1, and 1147) Recently Adopted Rules Affecting Non-RECLAIM Sources

Other rules adopted through 2023 (e.g., Rules 1111, 1153.1, and 1168)

# Recently Adopted Mobile Source Measures Providing Reductions in 2031









On-Road Light-Duty

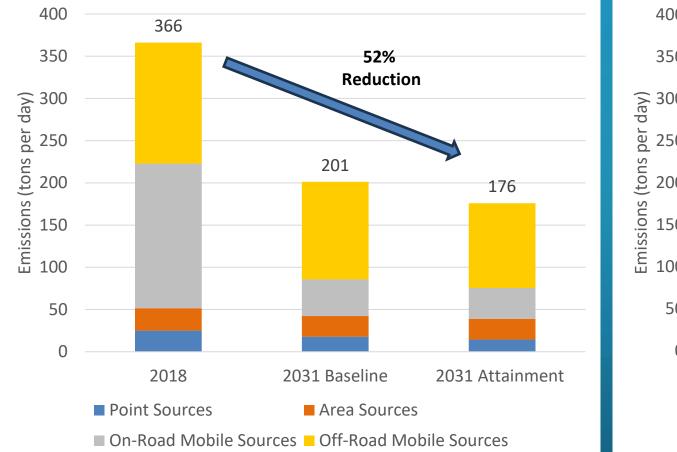
## On-Road Heavy-Duty

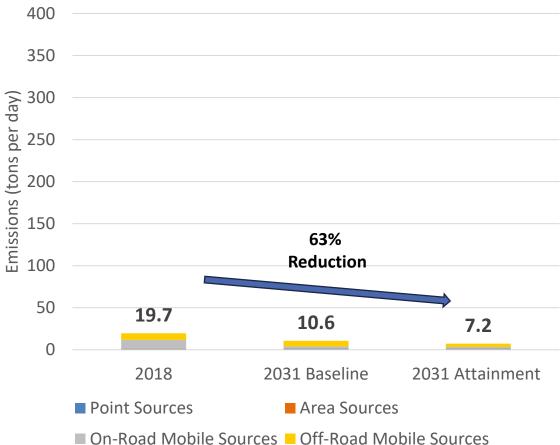
## Off-Road Equipment

Primarily-Federally Regulated Sources

# Emission Changes from 2018 to Attainment Scenario

South Coast Air Basin Total NOx Emission



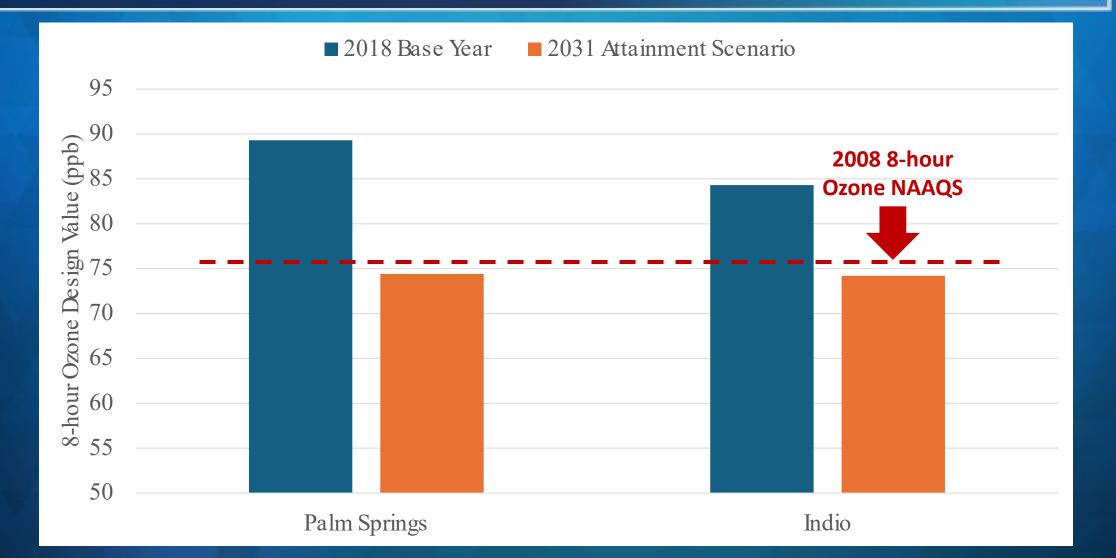


**Coachella Valley Total NOx Emission** 

Off-Road Mobile Sources
Off-Road Mobile Sources
Off-Road Mobile Sources

'Baseline' includes all previously adopted rules. 'Attainment' includes projections from recently adopted rules. NOx contributes to ozone formation.

## **Future Ozone Concentrations**



## **SIP Development Public Process**



## Staff Recommendation

## Adopt the Resolution:

- Determining that the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard is exempt from the requirements of CEQA.
- Adopting the Coachella Valley Attainment Plan for the 2008 8-Hour Ozone Standard and directing staff to submit the plan to CARB for its approval and subsequent submittal to the U.S. EPA for inclusion into the SIP.