



# 2020

ANNUAL REPORT



Dear Friends,

This last year was one that we will never forget. The COVID-19 pandemic forever changed our lives. The impact the virus had to us all, but especially our communities of color, is heartbreaking. My thoughts and prayers go out to all who have been impacted.

As a public health agency, the virus impacted the way we work. The agency quickly pivoted to telework and went virtual with meetings and events immediately. We implemented practices and procedures to keep employees safe while continuing our important work. In fact, we became an example to the region as we rose to the challenge.

Most importantly, the agency was able to continue its work and keep true to our mission. Despite COVID-19, in 2020 we were able to adopt and amend rules that reduce emissions and better protect our communities. We successfully implemented more than \$139 million in incentive funding and fought diligently to secure resources to continue the implementation of the AB 617 program. We did this while maintaining transparency and an open public process. Our virtual meetings are highly attended, and we successfully transitioned our events and conferences to a format that allowed more community members to become involved in the quest for clean air.

In 2020 we saw millions of people across the country protest racism and injustice. This movement has shown us the power of action and inspired us to take a look at ourselves, as an agency. We have joined the Government Alliance on Race and Equity program; and most recently, we welcomed our first ever Diversity, Equity and Inclusion Officer to evaluate internal and external programs.

We also said goodbye to a trailblazer in the clean air and environmental justice movement. Dr. William A. Burke retired from the Governing Board after an unprecedented 27 years on the Board, 23 of them as Chairman.

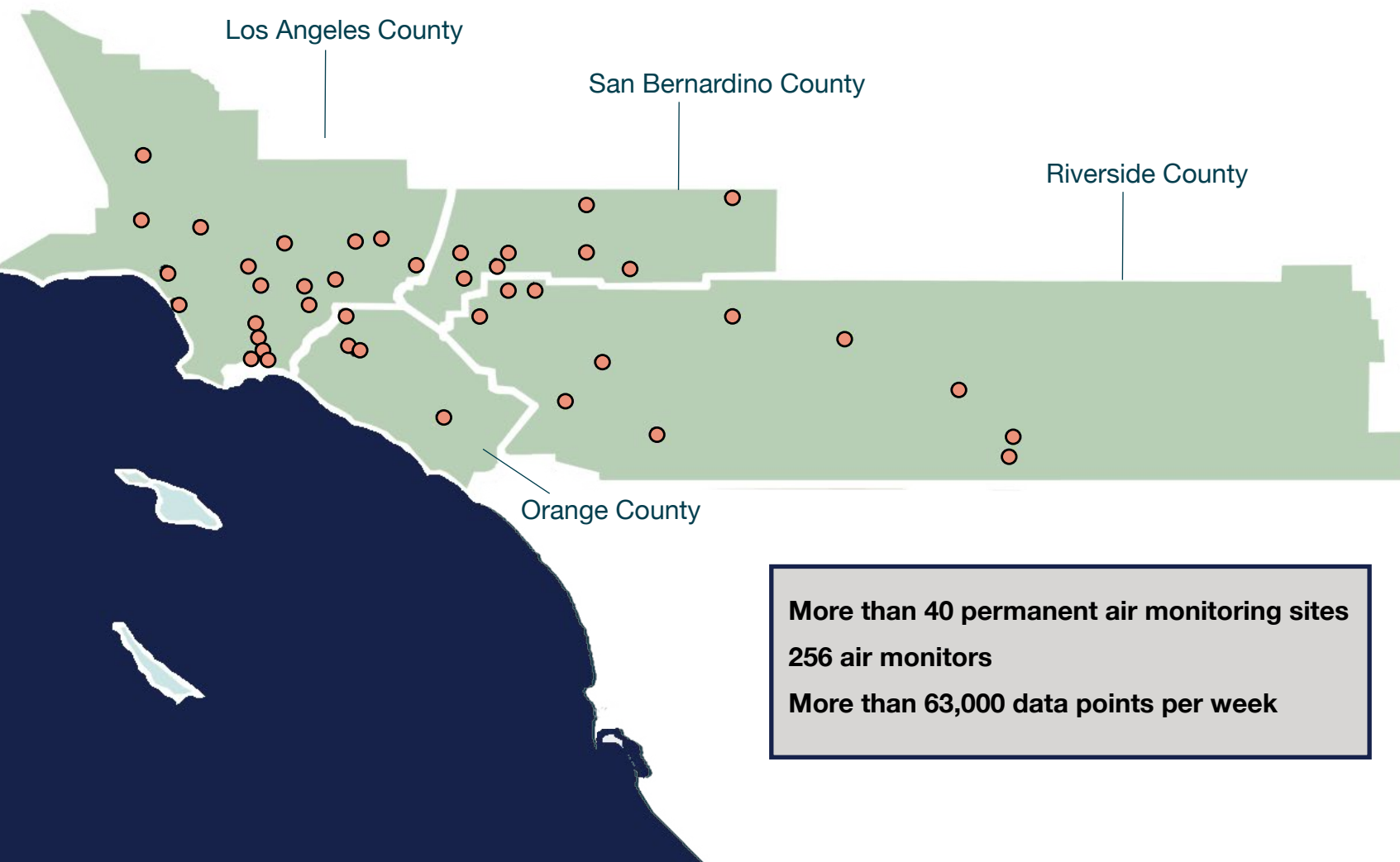
There have been many changes to the way we live and work and as the world gets ready to reopen, we will continue to navigate those changes so we can continue our important work. As you read through this year's annual report, and reflect upon the work and accomplishments in 2020, remember that we know there is more work to do - rest assured that we remain committed in our fight for clean air.

Sincerely,

Ben J. Benoit  
Chair, South Coast AQMD Governing Board



# SOUTH COAST AQMD AIR MONITORING NETWORK



**More than 40 permanent air monitoring sites**  
**256 air monitors**  
**More than 63,000 data points per week**

# SOUTH COAST AQMD AIR MONITORING APP NOW THE MOST ADVANCED IN THE REGION



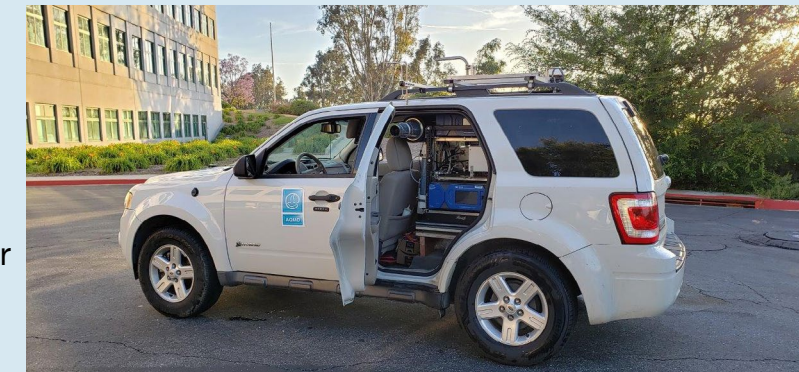
In 2020 South Coast AQMD released a major update to its mobile application, making it the most advanced air quality app in the region. The update features more accurate and precise real-time air quality information from anywhere within South Coast AQMD's four-county jurisdiction. Blending data from regulatory monitoring stations, crowd-sourced low-cost sensor measurements and an air quality model run by the National Oceanic and Atmospheric Administration (NOAA), South Coast AQMD developed a methodology designed to provide residents with air quality information on the neighborhood level.

The app continues to feature detailed, interactive maps of the South Coast Air Basin and Coachella Valley showing real-time and forecasted air quality and weather conditions. Users can also find alternative fueling locations, air advisories, announcements, public events, meetings and workshops. The app is available in both English and Spanish for Apple and Android devices.

Major improvements to the app include:

- AQI maps displayed in grid cells of 5 x 5 kilometers with over 1,200 distinct locations. This contrasts with earlier versions of the app that displayed data for 37 distinct regions.
- This new framework is more accurate than previous methods, especially during wildfire events.
- Increased personalization when adding new locations. Grid areas can now be labeled as 'Home,' 'Work,' 'School' or include a custom label like 'Dodger Stadium' or a favorite restaurant.

For more information, please visit:  
<https://www.aqmd.gov/mobileapp>.



## Advanced Measurement Technology:

- 5 mobile platforms
- More than 400 air quality sensors
- 2 near real time metals monitors

# STATE OF THE AIR

## EXAMPLES OF AIR POLLUTION SOURCES

### STATIONARY SOURCES

#### Point Sources

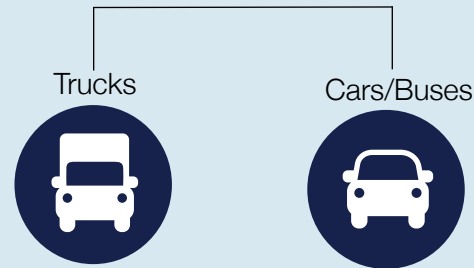


#### Area Sources

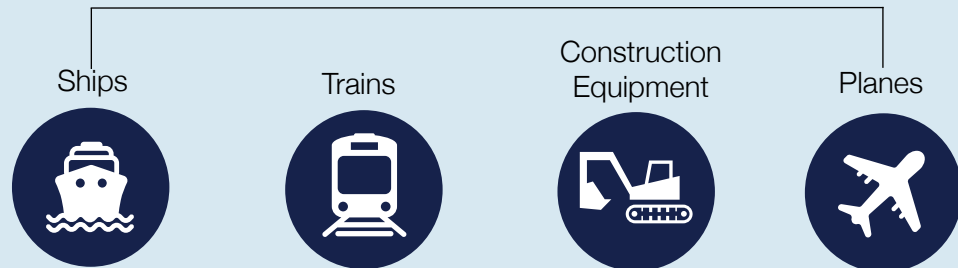


### MOBILE SOURCES

#### On-Road



#### Off-Road



### ENVIRONMENTAL FACTORS

Mixing and Ventilation



Temperature



Seasons



Storms

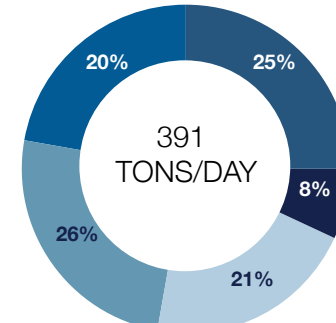


Fog and Humidity



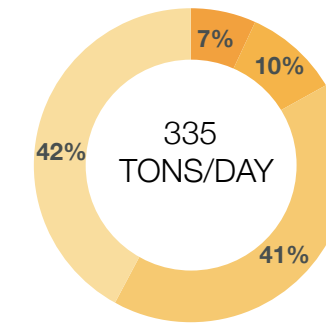
## 2020 EMISSION SOURCES

### VOC EMISSIONS



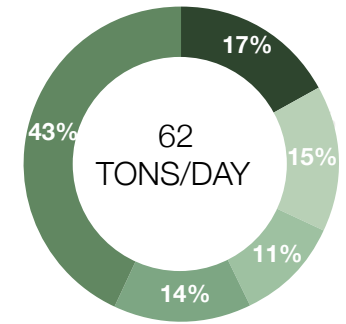
- Off-Road 25%
- On-Road 20%
- Architectural Coating and Consumer Product 26%
- Area Sources 21%
- Point Sources 8%

### NOx EMISSIONS



- On-Road 42%
- Off-Road 41%
- Area Sources 10%
- Point Sources 7%

### PM2.5 EMISSIONS



- Area Sources 43%
- Point Sources 14%
- Off-Road 11%
- Road Dust 15%
- On-Road 17%

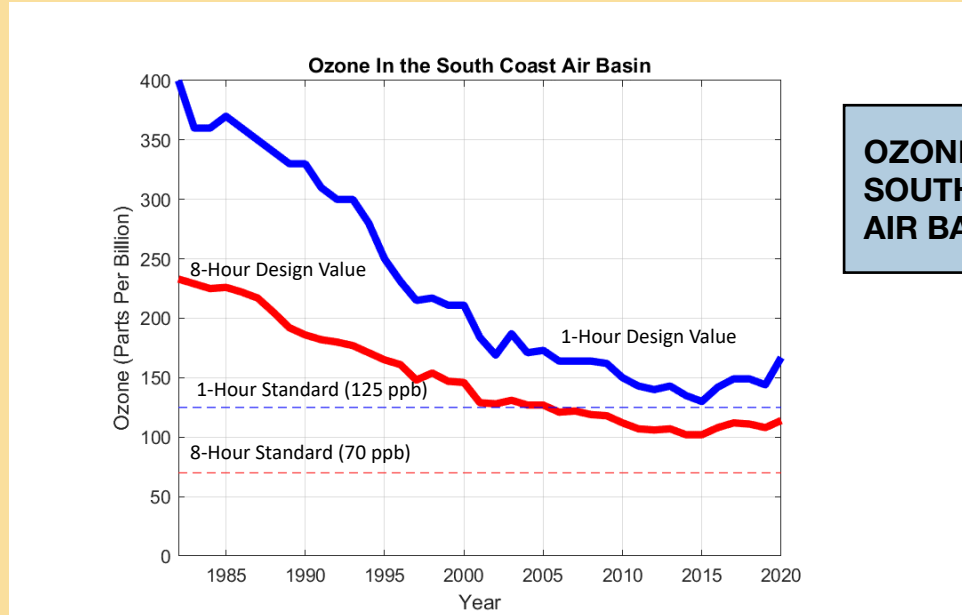
**Fine Particulate Matter (PM2.5)**- inhalable particles, 30 times smaller than the width of a human hair, that are emitted from a variety of sources such as vehicles, wildfires and industrial sources. PM 2.5 also forms in the atmosphere from the reaction of gases emitted from these same sources.

**Nitrogen oxides (NOx)**- formed when fuel is burned. Sources include trucks, ships, trains, construction equipment, boilers, power plants, and fires.

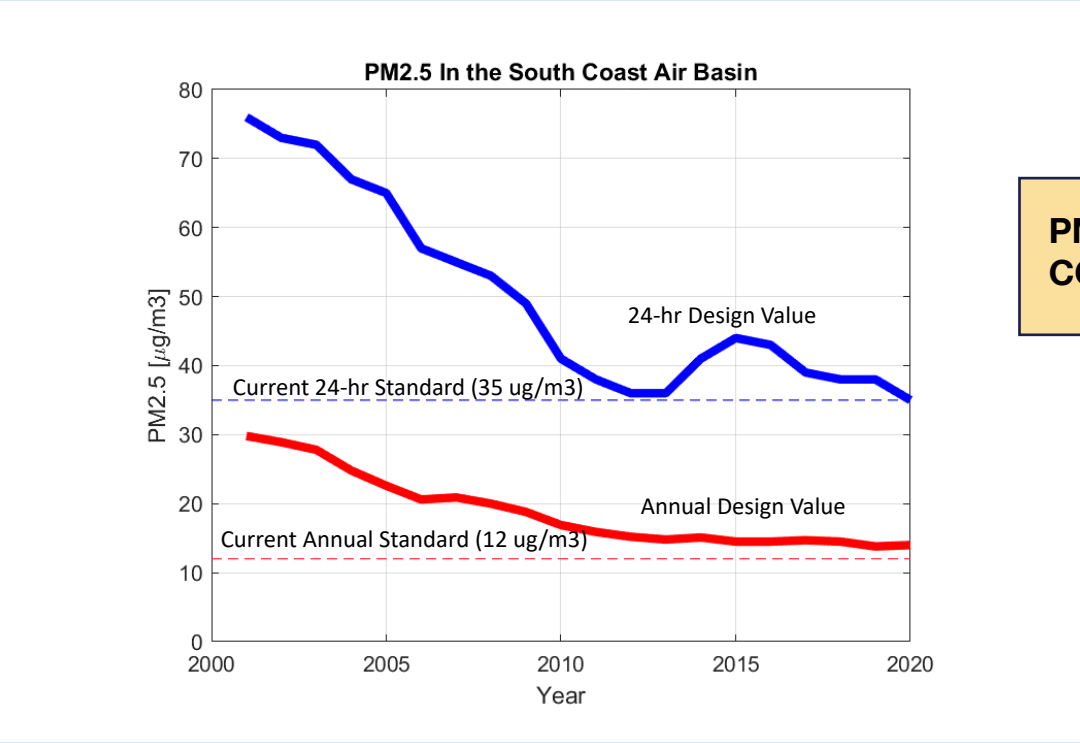
**Volatile organic compounds (VOCs)**- can be emitted from a variety of sources such as paints and lacquers, organic solvents, cleaning supplies and pesticides.

**Ozone** (commonly known as smog) is formed from the reaction of VOCs and NOx in the presence of sunlight. Higher temperatures and intense sunlight combined with stagnant weather tend to accelerate the formation of ozone.

# AIR QUALITY TRENDS

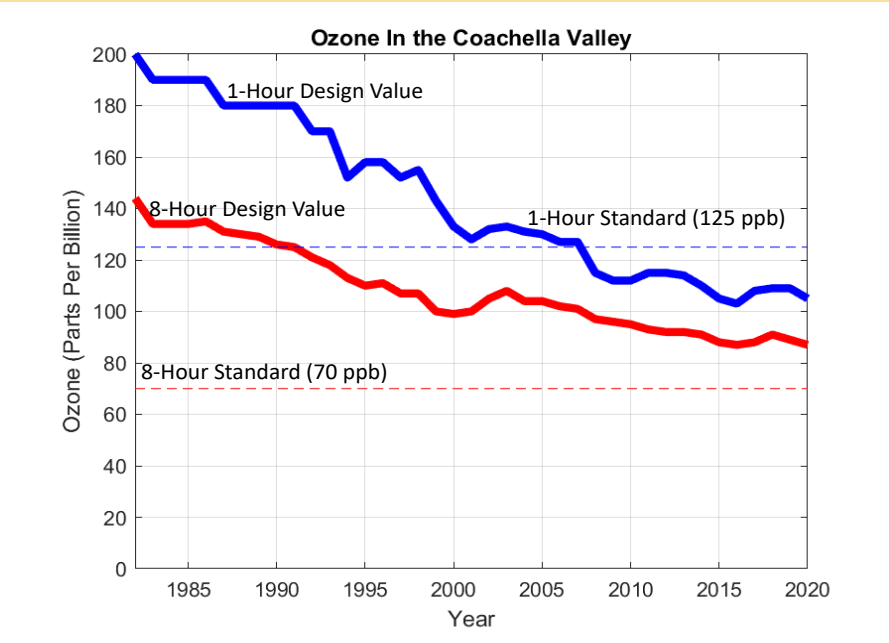


**OZONE IN THE SOUTH COAST AIR BASIN**



**PM2.5 IN THE SOUTH COAST AIR BASIN**

**OZONE IN THE COACHELLA VALLEY**



\*Concentrations in the graphs are design values, which are metrics developed by U.S. EPA to determine attainment of air quality standards.

Number of days exceeding the 1997 Ozone standard in 2020\*:  
**26**  
\*At any station in the South Coast Air Basin

Number of days exceeding the 2015 Ozone standard in 2020\*:  
**157**  
\*At any station in the South Coast Air Basin

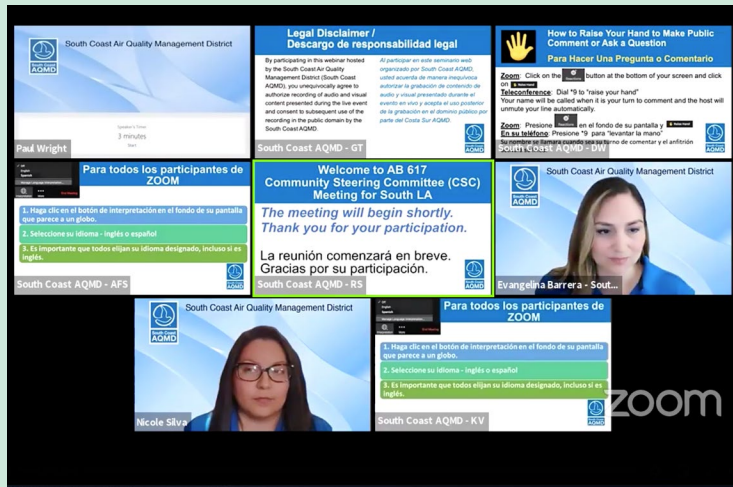
Number of days exceeding the 24-hr PM2.5 standard in 2020\* (excluding exceptional events):  
**16**  
\*At any station in the South Coast Air Basin

Number of No Burn Days Declared in 2020:  
**25**

# PROTECTING COMMUNITIES

## Assembly Bill 617 (AB 617)

South Coast AQMD continued its efforts under AB 617 to reduce air pollution in communities that experience disproportionate burdens. Meetings and discussions were successfully conducted virtually. The added accessibility and inclusion provided by the virtual format increased meeting attendance for each community. The 2018-designated communities of: 1) Wilmington, Carson, West Long Beach; 2) San Bernardino, Muscoy; and 3) East Los Angeles, Boyle Heights, West Commerce continued with meetings and discussion surrounding the implementation of their community air monitoring and emissions reduction plans. South Coast AQMD worked closely with the 2019-designated communities of: 1) Southeast Los Angeles; and 2) Eastern Coachella Valley; to conduct extensive stakeholder engagement, and develop community air monitoring and emissions reduction plans. In 2020, the South Los Angeles community was recommended for inclusion in the AB 617 program and an innovative, multiple co-leadership Community Steering Committee was established.



**35** Committee Meetings and Workshops

**100+** Individual Meetings

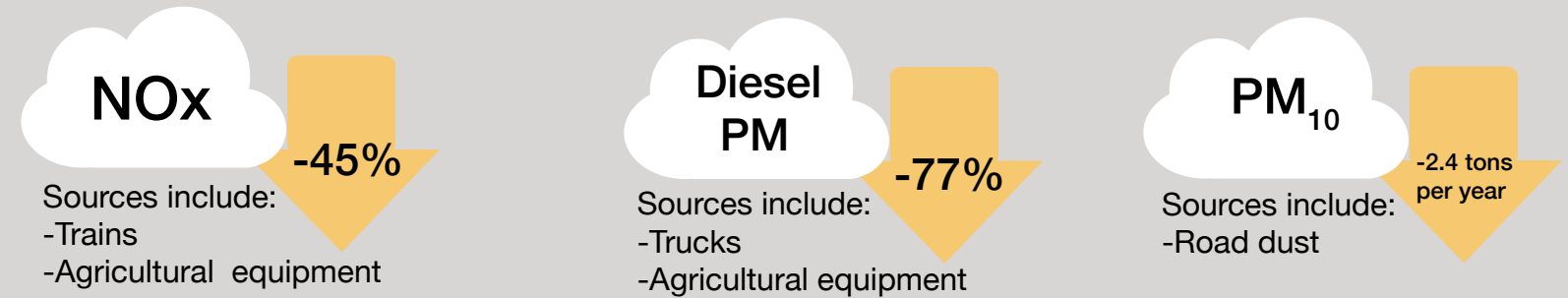
## 2019-DESIGNATED COMMUNITY EMISSIONS REDUCTION PLANS EASTERN COACHELLA VALLEY

Aims to reduce air pollution through existing regulations and community-designed actions including:

- Reducing emissions by paving unpaved roads and mobile home parks
- Expanding the monitoring network to address concerns about emissions from the Salton Sea
- Replacing older, higher polluting on and off-road equipment with cleaner technology

### How much will air pollution improve in Eastern Coachella Valley?

Total reductions by 2030



## SOUTHEAST LOS ANGELES

Aims to reduce air pollution through existing regulations and community-designed actions including:

- Replacing dirty trucks with zero and near-zero emission trucks through incentives.
- Preventing truck idling via outreach and enforcement.
- Identifying and reducing emissions from industrial facilities.

### How much will air pollution improve in Southeast Los Angeles?

tpy=tons per year	By 2025	By 2030
NOx	155 tpy (~32% reduction)	297 tpy (~41% reduction)
Diesel PM	1 tpy (~58% reduction)	3.5 tpy (~74% reduction)

# COMMUNITY OUTREACH



8 public meetings including Town Hall, AB 2588 Air Toxics “Hot Spots” and Community meetings.



Organized 4 Environmental Justice Community Partnership meetings



Participated in 9 community events such as health and environmental justice resource fairs, Council of Government General Assemblies and air quality related forums and conferences. Planned, organized and produced 3 major events including the Martin Luther King Jr. Day of Service, Cesar Chavez Day of Remembrance, and the annual Environmental Justice Conference.



Held 6 Inter-Agency Task Force and Environmental Justice Advisory Group meetings to connect with communities and cultivate a two-way flow of communication.



Facilitated presentations for 8 organizations, groups and interested stakeholders.



Press and Social Media

- 200 news releases issued (English and Spanish) including smoke, odor and other advisories.
- 1,882 press interactions.
- Social Media outreach for September 2020 was best performing month in history due to daily air quality posts, and wildfire coverage resulting in 841,900 impressions (individual reach) in a one week period.

# EDUCATION PROGRAMS

## WHY HEALTHY AIR MATTERS

The Why Healthy Air Matters (WHAM) Program was expanded to include both high and middle schools within the region, especially in environmental justice communities. WHAM is designed to increase air quality awareness and to empower youth to drive positive change. In 2020, the WHAM program was converted to a virtual program with teaching guides and student workbooks made available in digital formats along with the development of training videos for teachers and students. The program was implemented in 97 high school and 22 middle school classrooms throughout South Coast AQMD’s jurisdiction. Trained South Coast AQMD staff volunteers taught the WHAM curriculum, giving students the opportunity to interact firsthand with air quality scientists, engineers, inspectors, and others.



### Fully Funded

Free curriculum offered to qualified middle and high schools within the South Coast AQMD’s jurisdiction (all of Orange County, and parts of Los Angeles, Riverside and San Bernardino Counties).

### Hands-on Experiments

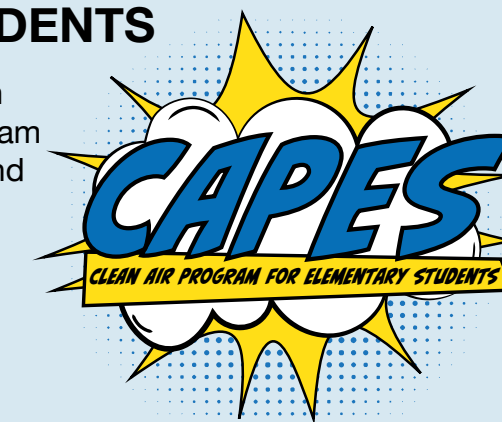
Students can measure air quality and interpret data of pollution in your community.

### Accommodates Distance Learning

Virtual options include guest speakers, PowerPoints, pre-recorded video lectures & more!

## CLEAN AIR PROGRAM FOR ELEMENTARY STUDENTS

The Clean Air Program for Elementary Students (CAPES) provides hands-on curriculum for K-5 in science, technology, engineering, and math. The program engages and educates teachers, students and their families on air quality and the health effects of air pollution. In 2020 the program developed a series of videos on air pollution, the Air Quality Index, science experiments and more to support distance, in person and hybrid learning.



# 2020 REGULATORY MILESTONES

## 10 RULES ADOPTED OR AMENDED IN 2020

### Strengthened Rules for Glass Melting Facilities

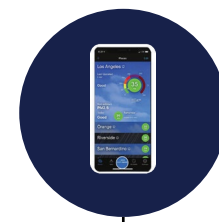
Rule 1117 reduces nitrogen oxide (NOx) emissions from glass melting facilities. The amendment expands the rule to include container glass facilities to further reduce 0.57 tons per day of NOx and will ensure that equipment at facilities use the best available retrofit control technologies.

### Reduce Emissions from Publicly Owned Sewage Treatment Works

Rule 1179.1 was adopted to reduce NOx emissions from equipment such as turbines, boilers and engines at these types of facilities.

# COMMUNICATION CENTER AND PUBLIC INFORMATION CENTER

In 2020, South Coast AQMD strived to be transparent and accessible to the public through digital, virtual and in person service.



Over 42,764 installs of the mobile app. Available for Apple and Android Phones.



Processed 367 walk-up inquiries from January-February through the Public Information Center



Responded to more than 4,630 Public Records Inquiries



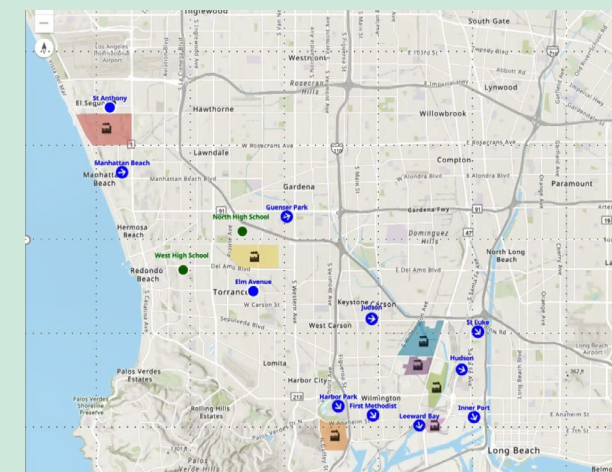
Facilitated 32,072 phone calls from the Public



Conducted 50 Compliance Workshops

### Refinery Community and Fenceline Air Monitoring

This is the largest and most comprehensive permanent community air network in the nation, providing information on multiple air pollutant levels in real time at the fenceline of all the major refineries and in neighboring communities. In 2020, the agency deployed 10 monitoring sites, developed a comprehensive data website, providing important information to the public.





# 2020 BY THE NUMBERS

## LAB SAMPLES ANALYZED

TYPE	ANALYSIS COUNT
Asbestos	669
Compliance	520
Microscopy	20
Particulates	20,175
Toxics	1,035
Total	62,465

## PERMITTING

Permits to construct issued

**2,125**

Permit applications processed

**6,190**

## COMPLAINT AND EQUIPMENT BREAKDOWNS RECEIVED

Asbestos	886	Other	416
Dust	1,526	Over Spray	145
Equipment Breakdown	1,082	Residential Wood Burning	352
Odors	6,730	Gas Stations	86
Open Fire	73	Smoke	808

Total **12,229**



**COMPLIANCE ACTIVITY**

**NUMBER OF  
ACTIVE FACILITIES**

**25,229**

**341**

Title V Inspections

**252**

RECLAIM Audits Completed

**10,706**

Complaints Investigated

**782**

Breakdowns Investigated

**5,120**

Other Stationary Source  
Inspections Completed

**3,806**

Portable Equipment Registration  
Program Inspections Completed

**919**

Notices of Violations Issued

**2,166**

Notices to Comply Issued

# CLEAN AIR INVESTMENTS

In 2020, South Coast AQMD invested almost **\$139 Million** in innovative clean air initiatives that paved the way for a cleaner future. These investments resulted in more than **2,540** equipment or vehicles replaced or upgraded and reduced nitrogen oxide emissions by more than **584** tons per year.

## \$40 MILLION

for 186 cleaner engines, equipment and other sources of air pollution through the Carl Moyer Program for cleaner-than-required engines, equipment, and other sources of air pollution.



## \$14 MILLION

for the Replace Your Ride Program which allowed residents to exchange almost 1,649 high-polluting cars with a newer model, a hybrid or electric car, or public transit vouchers.



## \$3 MILLION

for the Voucher Incentive Program for smaller fleet owners to replace old, high-polluting heavy-duty trucks with newer, lower emission vehicles. More than 63 pieces of equipment were replaced.



## \$37 MILLION

for the AB 617 Incentive programs to reduce air pollution in disadvantaged communities. This year 172 heavy-duty truck engines, trucks and school buses were upgraded or replaced to cleaner, near-zero or zero-emission versions.



## \$40 MILLION

to reduce diesel air pollution from goods movement operations including 399 cleaner heavy-duty trucks, electric charging stations, and hydrogen fueling units.



# CLEAN AIR POLICY 2020 LEGISLATIVE SUMMARY

South Coast AQMD actively participated in local, state and federal policy discussions to promote cleaner air and a green economy, protect public health and work towards attainment of federal clean air standards.

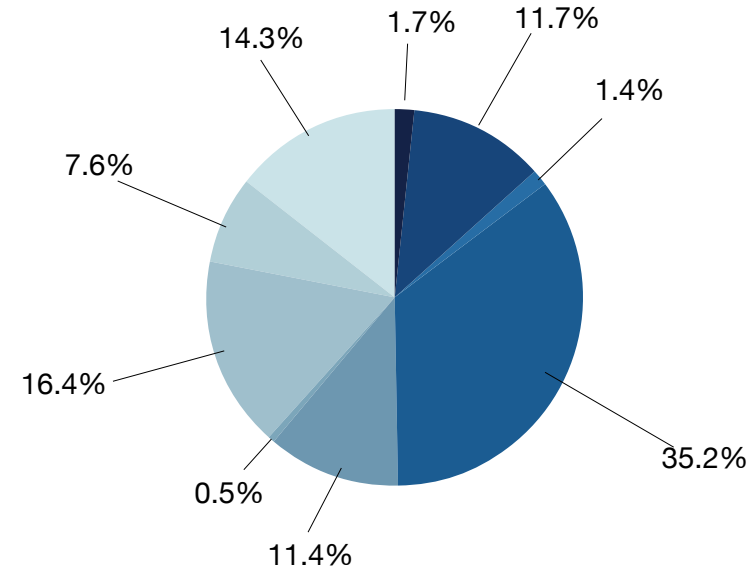
## STATE HIGHLIGHTS

- Assisted with efforts to secure \$50 million statewide to air districts to implement AB 617.
- Opposed and successfully defeated four backup generator bills that were attacking air district authority.
- Worked with the Governor to facilitate two Executive Orders:
  - First, suspending Brown Act requirements to allow for virtual public meetings exclusively through electronic participation.
  - Second, allowing public notices under CEQA, to be filed electronically with the State.

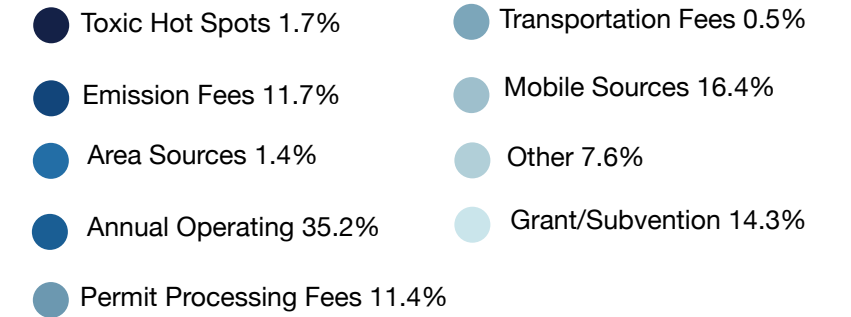
## FEDERAL HIGHLIGHTS

- Worked with Congressional Delegation to increase and/or protect funding:
  - Targeted Airshed Grants (TAG) increased from \$56.3 million in FY 2020 to \$59 million in FY 2021 and prevented the expansion of program eligibility from five (5) to ten worst nonattainment areas for ozone and particulate matter:
  - The Diesel Emission Reductions Act (DERA) was increased to \$90 million from \$87 million.
  - \$2.5 billion was authorized for research, development, demonstration and commercialization activities in the Offices of Hydrogen and Fuel Cell Technologies, Vehicle Technologies and Bioenergy Technologies.
- Worked in support of policies and programs to reduce emissions from mobile and other sources and invest in infrastructure development and demonstration projects, especially within environmental justice communities.

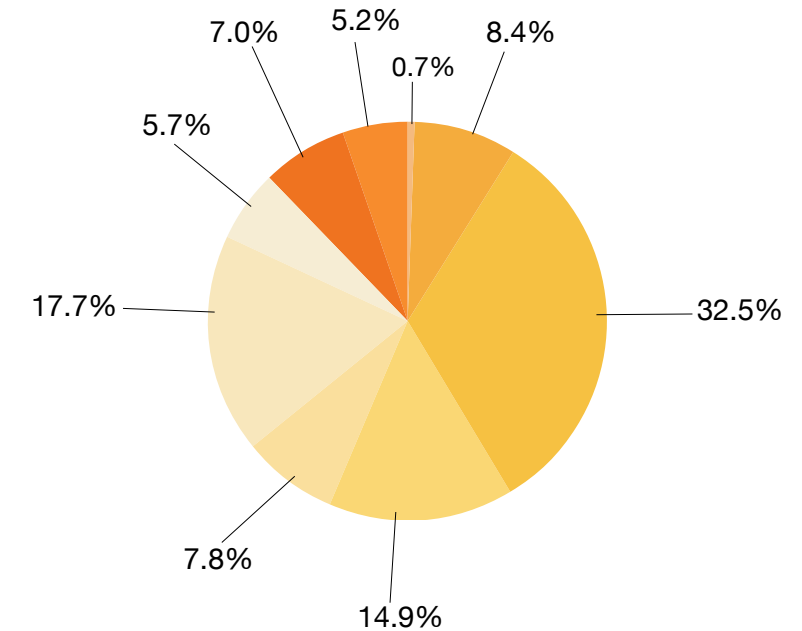
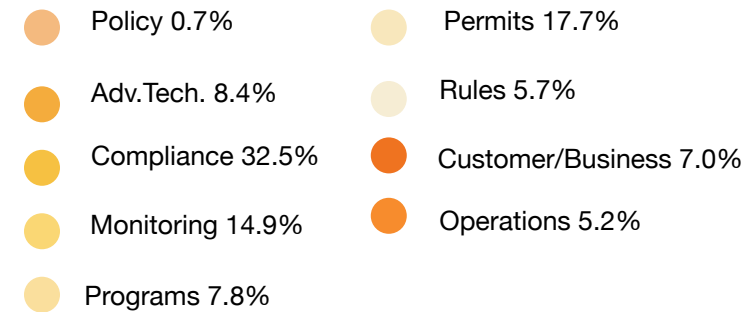
# ANNUAL BUDGET



## REVENUES BY MAJOR CATEGORY



## WORK PROGRAM CATEGORY EXPENDITURES





**Members of the Governing Board:**

**Chair**  
**Ben Benoit**  
 Mayor Pro Tem, Wildomar  
 Cities of Riverside County

**Vice Chair**  
**Vanessa Delgado**  
 Senator (Ret.)

**Lisa Bartlett**  
 Supervisor, Fifth District  
 County of Orange

**Joe Buscaino**  
 Council Member, 15th District  
 City of Los Angeles  
 Representative

**Michael A. Cacciotti**  
 Mayor Pro Tem, South Pasadena  
 Cities of Los Angeles County/  
 Eastern Region

**Gideon Kracov**  
 Governor's Appointee

**Sheila Kuehl**  
 Supervisor, Third District  
 County of Los Angeles

**Larry McCallon**  
 Mayor Pro Tem, Highland  
 Cities of San Bernardino

**Veronica Padilla-Campos**  
 Senate Rules Committee  
 Appointee

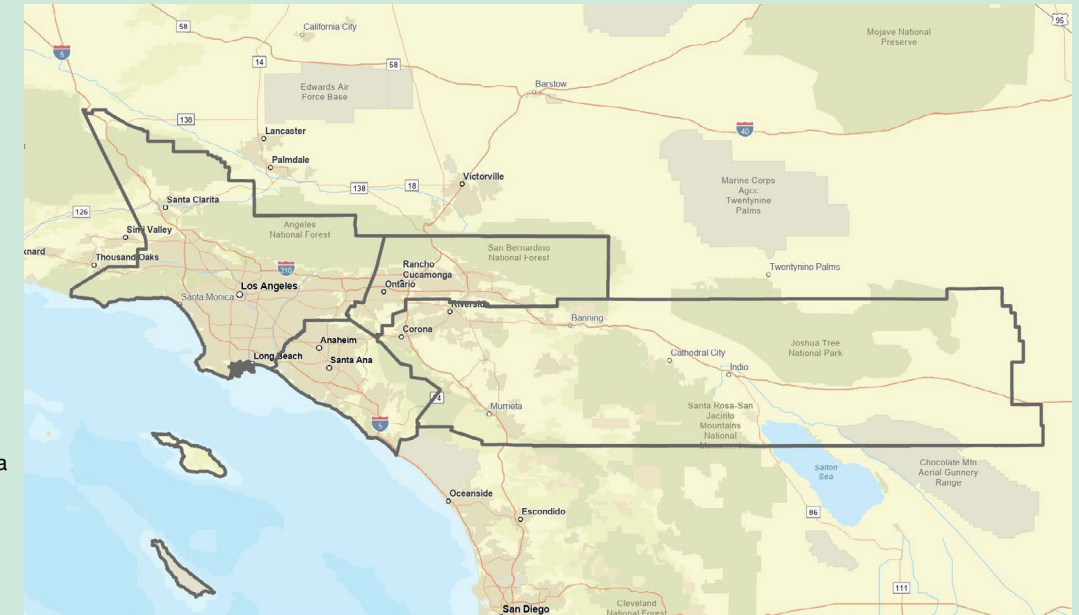
**V. Manuel Perez**  
 Supervisor, Fourth District

**Rex Richardson**  
 Vice Mayor, City of Long Beach  
 Cities of Los Angeles County/  
 Western Region

**Carlos Rodriguez**  
 Mayor Pro Tem, Yorba Linda  
 Cities of Orange County

**Janice Rutherford**  
 Supervisor, Second District  
 Country of San Bernardino

**KEY PHONE NUMBERS AND OTHER CONTACT INFORMATION**



**South Coast AQMD Headquarters**

21865 Copley Drive  
 Diamond Bar, CA 91765  
 Website: [www.aqmd.gov](http://www.aqmd.gov)

Main Phone Number	(909) 396-2000
Air Quality Complaints	(800) CUT-SMOG
Air Quality Forecasts	(800) CUT-SMOG
Clerk of the Boards	(909) 396-2500
Public Advisor	(909) 396-2432
Public Information Center	(909) 396-2001
Small Business Assistance	(800) 388-2121

DO ONE THING FOR CLEAN AIR



NOW AVAILABLE  
IN SPANISH

DOWNLOAD

SOUTH COAST AQMD'S MOBILE APP

TODAY!

A ONE-STOP APP FOR

- Real-time Air Quality Alerts
- Report a Complaint
- Alternative Fuel Locations
- Weather



Visit Our Website: [www.aqmd.gov/mobileapp](http://www.aqmd.gov/mobileapp)

POINT YOUR CAMERA HERE

Visit the App Store



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