



# South Coast Air Quality Management District

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SENT VIA E-MAIL:

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## **Notice of Preparation of a Program Environmental Impact Report for the Proposed Santa Ana General Plan**

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. South Coast AQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the Proposed Project that should be included in the Program Environmental Impact Report (EIR). Please send South Coast AQMD a copy of the Program EIR upon its completion and public release. Note that copies of the Program EIR that are submitted to the State Clearinghouse are not forwarded to South Coast AQMD. Please forward a copy of the Program EIR directly to South Coast AQMD at the address shown in the letterhead. **In addition, please send with the Program EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files<sup>1</sup>. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, South Coast AQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

### **Air Quality Analysis**

South Coast AQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. South Coast AQMD staff recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analyses. Copies of the Handbook are available from the South Coast AQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on South Coast AQMD's website at: [http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-\(1993\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993)). South Coast AQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: [www.caleemod.com](http://www.caleemod.com).

On March 3, 2017, the South Coast AQMD's Governing Board adopted the 2016 Air Quality Management Plan (2016 AQMP), which was later approved by the California Air Resources Board on March 23, 2017.

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<sup>1</sup> Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NO<sub>x</sub>) emissions in 2023 and an additional 55 percent NO<sub>x</sub> reduction beyond 2031 levels for ozone attainment. The 2016 AQMP is available on South Coast AQMD's website at: <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.

South Coast AQMD staff recognizes that there are many factors Lead Agencies must consider when making local planning and land use decisions. To facilitate stronger collaboration between Lead Agencies and South Coast AQMD to reduce community exposure to source-specific and cumulative air pollution impacts, South Coast AQMD adopted the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning in 2005<sup>2</sup>. This Guidance Document provides suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. South Coast AQMD staff recommends that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions. Additional guidance on siting incompatible land uses (such as placing homes near freeways or other polluting sources) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: <http://www.arb.ca.gov/ch/handbook.pdf>. Guidance<sup>3</sup> on strategies to reduce air pollution exposure near high-volume roadways can be found at: [https://www.arb.ca.gov/ch/rd\\_technical\\_advisory\\_final.PDF](https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF).

South Coast AQMD has also developed both regional and localized air quality significance thresholds. South Coast AQMD staff requests that the Lead Agency compare the emissions to the recommended regional significance thresholds found here: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. In addition to analyzing regional air quality impacts, South Coast AQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the Proposed Project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by South Coast AQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

When specific development is reasonably foreseeable as result of the goals, policies, and guidelines in the Proposed Project, the Lead Agency should identify any potential adverse air quality impacts and sources of air pollution that could occur using its best efforts to find out and a good-faith effort at full disclosure in the EIR. The degree of specificity will correspond to the degree of specificity involved in the underlying activity which is described in the EIR (CEQA Guidelines Section 15146). When quantifying air quality emissions, emissions from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources,

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<sup>2</sup> South Coast AQMD. 2005. Accessed at: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

<sup>3</sup> In April 2017, CARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement CARB's *Air Quality and Land Use Handbook: A Community Health Perspective*. This technical advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. The technical advisory is available at: <https://www.arb.ca.gov/ch/landuse.htm>.

such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, for phased projects where there will be an overlap between construction and operational activities, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA *operational* thresholds to determine the level of significance.

If the Proposed Project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

### **Mobile Source Health Risk Assessment**

Notwithstanding the court rulings, South Coast AQMD staff recognizes that the Lead Agencies that approve CEQA documents retain the authority to include any additional information they deem relevant to assessing and mitigating the environmental impacts of a project. Because of South Coast AQMD staff's concern about the potential public health impacts of siting sensitive populations within close proximity of freeways and other sources of air pollution, South Coast AQMD staff recommends that, prior to approving the project, Lead Agencies consider the impacts of air pollutants on people who will live in a new project and provide mitigation where necessary.

Based on review of Figure 1 enclosed in the Notice of Preparation, South Coast AQMD staff found that sensitive land uses (e.g., residential uses) may be located within close proximity to Interstate 5 and State Route 22. Sensitive receptors would be exposed to diesel particulate matter (DPM) emitted from heavy-duty, diesel-fueled on-road vehicles. DMP is a toxic air contaminant and a carcinogen. Since sensitive receptors would be exposed to toxic emissions, South Coast AQMD staff recommends that the Lead Agency conduct a mobile source health risk assessment (HRA)<sup>4</sup> in the Program EIR to disclose the potential health risks<sup>5</sup>. The HRA will facilitate the purpose and goal of CEQA on public disclosure and enable decision-makers with meaningful information to make an informed decision on project approval. This will also foster informed public participation by providing the public with useful information that is needed to understand the potential health risks from living and working within close proximity to freeways.

### **Mitigation Measures**

If the Proposed Project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the Proposed Project, including:

- Chapter 11 "Mitigating the Impact of a Project" of South Coast AQMD's *CEQA Air Quality Handbook*
- South Coast AQMD's CEQA web pages available here: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies>

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<sup>4</sup> South Coast AQMD. *Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.

<sup>5</sup> South Coast AQMD has developed the CEQA significance threshold of 10 in one million for cancer risk. When South Coast AQMD acts as the Lead Agency, South Coast AQMD staff conducts a HRA, compares the maximum cancer risk to the threshold of 10 in one million to determine the level of significance for health risk impacts, and identifies mitigation measures if the risk is found to be significant.

- South Coast AQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- California Air Pollution Control Officers Association's (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* available here: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

### **Health Risks Reduction Strategies**

As stated above, the Proposed Project is located within close proximity to freeways. Many strategies are available to reduce exposures, including, but are not limited to, building filtration systems with MERV 13 or better, or in some cases, MERV 15 or better is recommended; building design, orientation, location; vegetation barriers or landscaping screening, etc. Enhanced filtration units are capable of reducing exposures. Installation of enhanced filtration units can be verified during occupancy inspection prior to the issuance of an occupancy permit.

Enhanced filtration systems have limitations. South Coast AQMD staff recommends that the Lead Agency consider the limitations of the enhanced filtration. For example, in a study that South Coast AQMD conducted to investigate filters<sup>6</sup>, a cost burden is expected to be within the range of \$120 to \$240 per year to replace each filter. The initial start-up cost could substantially increase if an HVAC system needs to be installed. In addition, because the filters would not have any effectiveness unless the HVAC system is running, there may be increased energy costs to the sensitive receptors (e.g., residents). It is typically assumed that the filters operate 100 percent of the time while sensitive receptors at the Proposed Project are indoors, and the environmental analysis does not generally account for the times when sensitive receptors have their windows or doors open or are in common space areas of the project. In addition, these filters have no ability to filter out any toxic gases from vehicle exhaust. Therefore, the presumed effectiveness and feasibility of any filtration units should be carefully evaluated in more detail prior to assuming that they will sufficiently alleviate exposures to DPM emissions.

Because of the limitations, to ensure that enhanced filters are enforceable throughout the lifetime of the Proposed Project as well as effective in reducing exposures to DPM emissions, South Coast AQMD staff recommends that the Lead Agency provide additional details regarding the ongoing, regular maintenance and monitoring of filters in the environmental analysis. To facilitate a good faith effort at full disclosure and provide useful information to people who will live at the Proposed Project, the environmental analysis should include the following information, at a minimum:

- Disclose the potential health impacts to sensitive receptors from living in close proximity of sources of air pollution and the reduced effectiveness of air filtration system when windows are open and/or when receptors are outdoor (e.g., in the common and open space areas);
- Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are installed on-site at the Proposed Project before a permit of occupancy is issued;
- Identify the responsible implementing and enforcement agency such as the Lead Agency to ensure that enhanced filtration units are inspected regularly;
- Provide information to sensitive receptors on where the MERV filters can be purchased;
- Disclose the potential increase in energy costs for running the HVAC system to sensitive receptors;
- Provide recommended schedules (e.g., once a year or every six months) for replacing the enhanced filtration units to sensitive receptors;

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<sup>6</sup> This study evaluated filters rated MERV 13 or better. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf>. Also see 2012 Peer Review Journal article by South Coast AQMD: <https://onlinelibrary.wiley.com/doi/10.1111/ina.12013>.

- Identify the responsible entity such as sensitive receptors themselves (e.g., residents), Homeowner's Association, or property management for ensuring enhanced filtration units are replaced on time, if appropriate and feasible (if sensitive receptors should be responsible for the periodic and regular purchase and replacement of the enhanced filtration units, the Lead Agency should include this information in the disclosure form);
- Identify, provide, and disclose any ongoing cost sharing strategies, if any, for the purchase and replacement of the enhanced filtration units;
- Set City-wide or Project-specific criteria for assessing progress in installing and replacing the enhanced filtration units; and
- Develop a City-wide or Project-specific process for evaluating the effectiveness of the enhanced filtration units at the Proposed Project.

### **Alternatives**

If the Proposed Project generates significant adverse air quality impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Program EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project.

### **Permits**

If implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the Program EIR. For more information on permits, please visit South Coast AQMD's webpage at: <http://www.aqmd.gov/home/permits>. Questions on permits can be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

### **Data Sources**

South Coast AQMD rules and relevant air quality reports and data are available by calling the South Coast AQMD's Public Information Center at (909) 396-2001. Much of the information available through the Public Information Center is also available via the South Coast AQMD's webpage (<http://www.aqmd.gov>).

South Coast AQMD staff is available to work with the Lead Agency to ensure that project's air quality impacts are accurately evaluated and mitigated where feasible. Please contact me at [lsun@aqmd.gov](mailto:lsun@aqmd.gov), should you have any questions.

Sincerely,

*Lijin Sun*

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

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