South Coast AQMD

APPENDIX VIII

California Environmental Quality Act

Table of Contents

Introduction

The California Environmental Quality Act (CEQA) is comprised of Public Resources Code Section 21000 *et seq.* and the CEQA Guidelines which are codified at Title 14 California Code of Regulations, Section 15000 *et seq*. CEQA requires the evaluation of all potential adverse environmental impacts of proposed projects and the identification and implementation of methods to reduce or avoid significant adverse environmental impacts of these projects, if feasible. [Public Resources Code Section 21061.1 and CEQA Guidelines Section 15364]. The purpose of the CEQA process is to inform decision makers, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing a proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

The South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard (hereafter, referred as PM2.5 Plan) provides the strategy for how the region will meet the 2012 annual PM2.5 NAAQS in the South Coast Air Basin (Basin) as expeditiously as practicable, but no later than December 31, 2030, by relying on previously adopted control measures from the 2022 AQMP[1] and the 2016 AQMP[2] to reduce emissions of nitrogen oxides (NOx), ammonia (NH3) and directly emitted Particulate Matter of which diameter is 2.5 µm or less (PM2.5).

At the time the 2022 AQMP and 2016 AQMP were developed, each was considered a "project" as defined by CEQA Guidelines Section 15378 and the South Coast AQMD was lead agency under CEQA because it was the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment." [Public Resources Code Section 21067]. Further, since the South Coast AQMD Governing Board had the primary responsibility for approving the entirety of both projects, the South Coast AQMD was the most appropriate public agency to act as lead agency for the projects. [CEQA Guidelines Section 15051(b)].

The 2022 AQMP and 2016 AQMP each: 1) had environmental impacts which were evaluated in a Final Program Environmental Impact Report (Program EIR); and 2) were discretionary actions which were individually considered and approved by the South Coast AQMD Governing Board.

Therefore, the proposed project, the PM2.5 Plan, is integrally related to the 2022 AQMP and the 2016 AQMP for which two previous environmental analyses have been prepared: 1) the Final Program EIR for 2022 AQMP which was certified by the South Coast AQMD Governing Board on December 2, 2022[3]; and

[1] South Coast AQMD, 2022 Air Quality Management Plan, December 2022. https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan

[2] South Coast AQMD, 2016 Air Quality Management Plan, March 2017. https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp

[3] South Coast AQMD, Final Program Environmental Impact Report for the 2022 Air Quality Management Plan, December 2022. https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf

2) the Final Program EIR for 2016 AQMP which was certified by the South Coast AQMD Governing Board on March 3, 2017[4].

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified potentially significant impacts, mitigation measures were made a condition of approval of the 2022 AQMP and the 2016 AQMP and were adopted. Further, since mitigation measures were adopted for the 2022 AQMP and the 2016 AQMP, a Mitigation, Monitoring, and Reporting Plan for the 2022 AQMP and the 2016 AQMP, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines 15097 was also required and adopted.

Further, because the Final Program EIRs concluded that the 2022 AQMP and the 2016 AQMP will each have potentially significant and unavoidable adverse impacts on the environment, Findings were made pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 was adopted.

The 2022 AQMP, along with the December 2022 Final Program EIR for the 2022 AQMP (State Clearinghouse No. 2022050287) and its corresponding Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, and the 2016 AQMP along with the March 2017 Final Program EIR for the 2016 AQMP (State Clearinghouse No. 2016071006) and its corresponding with Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, upon which the analysis of the PM2.5 Plan relies, are incorporated by reference pursuant to CEQA Guidelines Section 15150 and are available from the South Coast AQMD's website at:

December 2022 Final Program EIR for the 2022 AQMP
Master webpage: https://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/south-coast-aqmd-projects---year-2022

December 2022 Final Program EIR for the 2022 AQMP (including Appendices)
https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf

2022 AQMP: https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan

March 2017 Final Program EIR for the 2016 AQMP
Master webpage: http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmdprojects/scaqmd-projects---year-2017

[4] South Coast AQMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf

March 2017 Final Program EIR for the 2016 AQMP (without Appendices)
https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf

Appendices A through C: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir_appendicesac.pdf

Appendices D through E: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir_appendicesde.pdf

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf

2016 AQMP: https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp

Copies of these documents may also be obtained from:

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For both of these projects, a Program EIR was considered to be the appropriate document for each AQMP pursuant to CEQA Guidelines Section 15168(a)(3) because each AQMP constituted a series of actions that can be characterized as one large project in connection with the issuance of rules, regulations, plans, or other general criteria required to govern the conduct of a continuing program. In addition, the use of a Program EIR had the following advantages by:

- Providing an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
- Ensuring a consideration of cumulative impacts that might be slighted in a case-by-case analysis;
- Avoiding duplicative reconsideration of basic policy considerations;
- Allowing consideration of broad policy alternatives and program-wide mitigation measures at an early time when the Lead Agency has greater flexibility to deal with basic problems of cumulative impacts; and
- Allowing its use with a later activity if the later activity is within the scope of the project analyzed in the Program EIR without requiring further environmental documents.

Because the PM2.5 Plan relies on several previously adopted control measures from the 2022 AQMP and the 2016 AQMP, this appendix examines whether the PM2.5 Plan qualifies as a later activity within the

scope of the analyses in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP pursuant to CEQA Guidelines 15168(c) – Use with Later Activities. As such, this appendix: 1) compares the proposed control measures in the PM2.5 Plan with the applicable control measures adopted in the 2022 AQMP and 2016 AQMP; 2) summarizes the environmental impacts analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP for each control measure applicable to the PM2.5 Plan; 3) identifies the differences in environmental impacts, if any, between the analyses in the Final Program EIRs for 2022 AQMP and 2016 AQMP for the applicable control measures upon which the PM2.5 Plan relies and as needed, identifies any other impact areas which may require further analysis; 4) considers the evidence and determines whether: a) the PM2.5 Plan is a later activity within the scope of the program approved earlier for the 2022 AQMP and 2016 AQMP; and b) the Final Program EIRs for the 2022 AQMP and the 2016 AQMP adequately describe the activities of the PM2.5 Plan for the purposes of CEQA such that no new environmental document will be required.

Comparison of Proposed Control Measures in the PM2.5 Plan with Control Measures in the 2022 AQMP and 2016 AQMP

The PM2.5 Plan proposes a total of 38 control measures with:

- 23 measures targeting reductions from stationary sources; and
- 15 measures targeting reductions from mobile sources.

The stationary source control measures are grouped into the following categories:

- NOx measures
- Direct PM2.5 measures
- Ammonia (NH3) measures
- Co-benefits from energy and climate change programs
- Other measures

The mobile source control measures are grouped into the following categories:

- Emission growth management measures
- Facility-based mobile source measures
- On-road and off-road measures
- Incentive-based measures
- Other measures

Overall, between 2018 and 2030, implementation of the PM2.5 Plan is expected to result in emission reductions of 34.94 tons per day of NOx and 1.36 tons per day of PM2.5 that are beyond the emission reductions anticipated from the implementation of already adopted rules and regulations by the South Coast AQMD and CARB.

Table VIII-1 lists the control measures which are proposed in the PM2.5 Plan, lists the equivalent applicable control measure which was previously adopted in either the 2022 AQMP or 2016 AQMP, and describes the proposed method of control and effects of implementing the control measures as adopted in the 2022 AQMP or 2016 AQMP. If a control measure in the PM2.5 Plan proposes a different control method that what was contemplated for the previously adopted control measures in the 2022 AQMP or 2016 AQMP, additional details are provided.

TABLE VIII-1
COMPARISON OF PROPOSED CONTROL MEASURES IN PM2.5 PLAN WITH APPLICABLE CONTROL MEASURES ADOPTED IN EITHER 2022 AQMP OR 2016 AQMP

Proposed Control Measure in PM2.5 Plan	Equivalent Applicable Adopted AQMP Control Measure	Proposed Method of Control and Effect of Implementation as Adopted in the AQMP
Stationary Source NOx Measures		
BCM-01: Emission Reductions from Replacement with Zero Emission or Low NOx Appliances – Residential Water Heating	R-CMB-01 in 2022 AQMP	Installation of zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.
BCM-02: Emission Reductions from Replacement with Zero Emission or Low NOx Appliances – Residential Space Heating	R-CMB-02 in 2022 AQMP	Installation of zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.
BCM-03: Emission Reductions from Residential Cooking Devices	R-CMB-03 in 2022 AQMP	Installation of electric cooking devices, induction cooktops, or low NOx burners in new and existing residences.
BCM-04: Emission Reductions from Replacement with Zero Emission or Low NOx Appliances – Residential Other Combustion Sources	R-CMB-04 in 2022 AQMP	Installation of zero emission or low NOx technologies in new and existing residences to replace equipment such as pool heaters, dryers, grills, etc.
BCM-05: Emission Reductions from Emergency Standby Engines	L-CMB-04 in 2022 AQMP	Installation of zero emission and low NOx technology alternatives to emergency ICEs, and requiring the use of renewable diesel for emergency standby ICEs.
BCM-06: Emission Reductions from Diesel Electricity Generating Facilities	L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.
BCM-07: Emission Reductions from Incinerators	L-CMB-09 in 2022 AQMP	Installation of low NOx and ultra-low NOx burners for incinerators and other associated equipment.

TABLE VIII-1 (continued)
COMPARISON OF PROPOSED CONTROL MEASURES IN PM2.5 PLAN WITH APPLICABLE CONTROL MEASURES ADOPTED IN EITHER 2022 AQMP OR 2016 AQMP

Proposed Control Measure in PM2.5 Plan	Equivalent Applicable Adopted AQMP Control Measure	Proposed Method of Control and Effect of Implementation as Adopted in the AQMP
Co-Benefits from Energy and Climate Change Programs		
ECC-01: Co-benefits from Existing and Future Greenhouse Gas Programs, Policies, and Incentives	ECC-01 in 2022 AQMP	Evaluation of renewable energy targets with existing and further greenhouse gas (GHG) emission reduction mechanisms, including market, incentive and rebate programs, and promotion of implementation and development of new technologies.
ECC-02: Co-benefits from Existing and Future Residential and Commercial Building Energy Efficiency Measures	ECC-02 in 2022 AQMP	Quantification of the criteria air pollutant and GHG emission reduction benefits from existing and future energy efficiency programs adopted by other regulatory authorities.
ECC-03: Additional Enhancements in Reducing Existing Residential Building Energy Use	ECC-03 in 2022 AQMP	Incentivization of additional reductions in energy use associated with space heating, water heating, and other large residential energy sources through facilitating weatherization, replacing older appliances with highly efficient technologies and encouraging renewable energy adoption such as solar thermal and photovoltaics.
Ammonia Measures		
BCM-08: Emission Reductions from Livestock Waste at Confined Animal Facilities	BCM-04 in 2016 AQMP	Acidifier application, incorporation of manure into soil, and lowering applicability thresholds for Rule 223 – Emission Reduction Permits for Large Confined Animal Facilities.
BCM-09: Ammonia Emission Reductions from NOx Controls	BCM-05 in 2016 AQMP	Reduction of ammonia slip by upgrading the SCR systems by tuning and optimizing to achieve the NOx limits specified in each rule.
BCM-10: Emission Reductions from Direct Land Application of Chipped and Ground Uncomposted Greenwaste	BCM-10 in 2016 AQMP	Composting of chipped and ground greenwaste.

TABLE VIII-1 (continued)
COMPARISON OF PROPOSED CONTROL MEASURES IN PM2.5 PLAN WITH APPLICABLE CONTROL MEASURES ADOPTED IN EITHER 2022 AQMP OR 2016 AQMP

Proposed Control Measure in PM2.5 Plan	Equivalent Applicable Adopted AQMP Control Measure	Proposed Method of Control and Effect of Implementation as Adopted in the AQMP
BCM-11: Emission Reductions from Organic Waste Composting	BCM-10 in 2016 AQMP	Emerging organic waste processing technology such as the co-digestion of food waste with biosolids, and increased anaerobic digestion such as through the integration of food waste digestate with greenwaste composting.
Direct PM2.5 Measures		
BCM-12: Further Emission Reductions from Commercial Cooking	BCM-01 in 2016 AQMP	BCM-01 in the 2016 AQMP identified PM control equipment for under-fired charbroilers, such as electrostatic precipitators (ESPs), filters, centrifugal separators, and misters. BCM-12 in the proposed PM2.5 Plan proposes PM control equipment for chain-driven charbroilers, such as catalytic oxidizers.
BCM-13: Emission Reductions from Cooling Towers	BCM-02 in 2016 AQMP	Phased-in use of drift eliminators with 0.001 percent drift rate for existing cooling towers. This could be achieved by retrofitting older cooling towers with modification to the cooling fans to accompany the drift eliminators, which will also result in water conservation. Newly constructed cooling towers have demonstrated ultra-low drift rates down to 0.0005 percent.
BCM-14: Further Emission Reductions from Paved Road Dust Sources	BCM-03 in 2016 AQMP	Increased street sweeping.
BCM-15: Emission Reductions from Abrasive Blasting Operations	BCM-06 in 2016 AQMP	Incentivization of portable blasting enclosures/booths with dust collection systems, primarily focusing on dry abrasive blasting operations conducted in open areas using portable blasting equipment.
BCM-16: Emission Reductions from Stone Grinding, Cutting and Polishing Operations	BCM-07 in 2016 AQMP	Dry and wet dust control options to control PM including silica particles.
BCM-17: Emission Reductions from Prescribed Burning for Wildfire Prevention	MCS-02 in 2022 AQMP	Mechanical thinning and chipping activities.

TABLE VIII-1 (continued)
COMPARISON OF PROPOSED CONTROL MEASURES IN PM2.5 PLAN WITH APPLICABLE CONTROL MEASURES ADOPTED IN EITHER 2022 AQMP OR 2016 AQMP

Proposed Control Measure in PM2.5 Plan	Equivalent Applicable Adopted AQMP Control Measure	Proposed Method of Control and Effect of Implementation as Adopted in the AQMP
BCM-18: Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves	BCM-09 in 2016 AQMP	Removal of the low-income exemption allowing wood burning on no-burn days (but retaining the sole-source of heat exemption).
BCM-19: Emission Reductions from Unpaved Road Dust Sources	N/A	BCM-19 was not previously adopted in either the 2022 AQMP or the 2016 AQMP. BCM-19 in the PM2.5 Plan seeks to develop an inventory of unpaved roads and parking lots within urban areas in the Basin for the purpose of assessing their suitability for paving.
Other Measures		
BCM-20: Application of All Feasible Measures	MCS-01 in 2022 AQMP	Retrofit existing equipment and install newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations.
Emission Growth Management Measures		
EGM-01: Emission Reductions from New Development and Redevelopment	EGM-01 in 2022 AQMP	Replacement or upgrade of off-road construction equipment as part of development/redevelopment efforts may result in the use of zero-emission technologies in construction, the installation of charging and alternative fueling infrastructure, the use of alternative fuels, and the use of construction equipment with low-emitting engines fitted with diesel PM filters.
EGM-02: Emission Reductions from Clean Construction Policy	EGM-03 in 2022 AQMP	Incentivization of the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, diesel PM filtration, low-emitting engines, and low VOC materials.
Facility-Based Measures		
MOB-01: Emission Reductions at Commercial Marine Ports	MOB-01 in 2022 AQMP	Development of cleaner technologies at commercial marine ports (e.g., from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft) along with corresponding infrastructure development.

TABLE VIII-1 (continued)
COMPARISON OF PROPOSED CONTROL MEASURES IN PM2.5 PLAN WITH APPLICABLE CONTROL MEASURES ADOPTED IN EITHER 2022 AQMP OR 2016 AQMP

Proposed Control Measure in PM2.5 Plan	Equivalent Applicable Adopted AQMP Control Measure	Proposed Method of Control and Effect of Implementation as Adopted in the AQMP
MOB-02: Emission Reductions at New and Existing Rail Yards	MOB-02A and MOB-02B in 2022 AQMP	Development of cleaner technologies at rail yards and intermodal facilities (e.g., from on-road heavy-duty vehicles, off-road equipment, and locomotives) along with corresponding infrastructure development.
MOB-03: Emission Reductions at Warehouse Distribution Centers	MOB-03 in 2022 AQMP	Reducing emissions and exposure of mobile sources associated with warehouse distribution centers by requiring actions or investments to offset the emissions of the mobile sources (trucks) attracted to the warehouses is being implemented via Rule 2305 which was adopted by the South Coast AQMD Governing Board on May 7, 2021.
MOB-04: Emission Reductions at Commercial Airports	MOB-04 in 2022 AQMP	Deployment of additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, diesel PM filters, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports.
On-Road and Off-Road Measures		
MOB-05: Accelerated Retirement of Light-Duty and Medium-Duty Vehicles	MOB-05 in 2022 AQMP	Acceleration of the retirement of light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.
MOB-06: Accelerated Retirement of On-Road Heavy-Duty Vehicles	MOB-06 in 2022 AQMP	Retirement of older, heavy-duty vehicles and replacing them with low-NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).
MOB-07: On-Road Mobile Source Emission Reduction Credit Generation Program	MOB-07 in 2022 AQMP	Incentivization of the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.

TABLE VIII-1 (concluded)
COMPARISON OF PROPOSED CONTROL MEASURES IN PM2.5 PLAN WITH APPLICABLE CONTROL MEASURES ADOPTED IN EITHER 2022 AQMP OR 2016 AQMP

Proposed Control Measure in PM2.5 Plan	Equivalent Applicable Adopted AQMP Control Measure	Proposed Method of Control and Effect of Implementation as Adopted in the AQMP
MOB-08: Small Off-Road Engine Equipment Exchange Program	MOB-08 in 2022 AQMP	Promotion of the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs.
MOB-09: Further Emission Reductions from Passenger Locomotives	MOB-09 in 2022 AQMP	Promotion of earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).
MOB-10: Off-Road Mobile Source Emission Reduction Credit Generation Program	MOB-10 in 2022 AQMP	Acceleration of the deployment of zero (e.g. battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding.
Incentive-Based Measures		
MOB-11: Emission Reductions from Incentive Programs	MOB-11 in 2022 AQMP	Allows the South Coast AQMD to take credit for emission reductions for SIP purposes achieved through past and future projects funded by incentive programs (e.g., replacing heavy-duty vehicle/equipment, installing retrofit units, and repowering engines for marine vessels, locomotives, trucks, school buses, agricultural equipment, construction equipment, commercial harbor craft, airport support equipment, and oil drilling equipment).
MOB-12: Pacific Rim Initiative for Maritime Emission Reductions	MOB-12 in 2022 AQMP	Allows the South Coast AQMD to recognize ocean-going vessel emission reductions that are the result of voluntary actions and may be considered surplus to the emission reduction commitments of the State SIP Strategy "Federal Action: Cleaner fuel and Vessel Requirements for Ocean-Gong-Vessels."
Other Mobile Source Measures		
MOB-13: Rule 2202 – On-Road Motor Vehicle Mitigation Options	MOB-14 in 2022 AQMP	Amendment of Rule 2202 to take into account emission reductions due to telecommuting strategies such as allowing employees to work from home.

As summarized in Table VIII-1, the PM2.5 Plan proposes to expand the methods of control and effects of implementation for only one control measure, BCM-12, when compared to the previous control measure it relies on, BCM-01 in the 2016 AQMP. In addition, the PM2.5 Plan proposes one new control measure, BCM-19, which does not rely on any previously adopted control measure in either the 2022 AQMP or 2016 AQMP.

1) Proposed control measure BCM-12 in the PM2.5 Plan proposes a future amendment to South Coast AQMD Rule 1138 – Control of Emissions From Restaurant Operations to make the exemption criteria applicable to chain-driven charbroilers in paragraph (e)(1) , more stringent by providing an option for the owner or operator to either accept a permit condition limiting the amount of meat cooked per week from 875 pounds to 400 pounds or install integrated catalytic oxidizer technology. By comparison, control measure BCM-01 of the 2016 AQMP contemplated the reliance on add-on air pollution control equipment and devices such as such as ESPs, filters, centrifugal separators, and misters for under-fired charbroilers in order to achieve reductions in PM.

   The potential for increased deployment of PM control equipment for under-fired charbroilers and the potential environmental impacts associated with the installation and operation of the aforementioned PM control equipment were analyzed in the Final Program EIR for the 2016 AQMP.

   Implementation of BCM-12 of the PM2.5 Plan is expected to result in the potential installation and operation of catalytic oxidizers for certain chain-driven charbroilers that were either not originally manufactured with a catalytic oxidizer or equivalent or more stringent PM control equipment or device. Therefore, the potential retrofit of chain-driven charbroilers with catalytic oxidizers is the only new physical change anticipated from implementing control measure BCM-12 of the PM2.5 Plan that was not previously contemplated or analyzed in the Final Program EIR for the 2016 AQMP.

2) Control measure BCM-19 is a new control measure which proposes to develop an inventory of unpaved roads and parking lots within urban areas in the Basin, and assess their suitability for paving.

   Implementation of control measure BCM-19 of the PM2.5 Plan is an administrative exercise that will not require physical changes. Therefore, no potential adverse environmental impacts are expected from implementation of this control measure.

Except for control measures BCM-12 and BCM-19, all of the other control measures proposed in the PM2.5 Plan are essentially equivalent to the applicable adopted control measure either in the 2022 AQMP or the 2016 AQMP such that their implementation is not expected to result in new physical changes and new or worsened environmental impacts relative to what was previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP. The following section, “Summary of Environmental Impact Analysis from Final Program EIRs for the 2022 AQMP and the 2016 AQMP” will detail the potential adverse

environmental impacts, conclusions of significance, mitigation measures, and cumulative impacts resulting from physical changes of all AQMP control measures on which the PM2.5 Plan relies.

Summary of Environmental Impact Analysis from the Final Program EIRs for the 2022 AQMP and the 2016 AQMP

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 resources involved; physical changes; alterations of ecological systems; health and safety impacts caused by physical changes; and other aspects of the resources involved 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 (codified in Title 14 California Code of Regulations Section 15000 et seq). Under the CEQA Guidelines Appendix G: Environmental Checklist Form, there are 20 environmental topic areas categories in which potential adverse impacts from a project are evaluated. The South Coast AQMD, as lead agency, has taken into consideration the environmental checklist questions in Appendix G, but has reorganized the contents to consolidate the environmental topic areas to avoid repetition. For example, South Coast AQMD's customized the environmental checklist by: 1) combining the topics of "air quality" and "greenhouse gas emissions" into one section; 2) combining the topics of "cultural resources" and "tribal cultural resources" into one section; 3) separating the "hazards and hazardous materials" topic into two sections: "hazards and hazardous materials" and "solid and hazardous waste;" and 4) distributing the questions from the topic of "utilities/service systems" into other more specific 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, noncompliance 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 CEQA Guidelines Section 15064.7(b).

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]. The detail of the environmental analysis for certain types of projects cannot be as great as for others. For example, an EIR for a project, such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan, should focus on the

secondary effects that can be expected to subsequently occur as a result of the adoption or amendment, but the analysis need not be as detailed as the analysis of any specific construction project(s) that may also occur.

The CEQA Guidelines also includes provisions for the preparation of Program EIRs in connection with the issuance of plans, such as the 2022 AQMP and 2016 AQMP, to govern the conduct of a continuing program, including adoptions of broad policy programs as distinguished from those prepared for specific types of projects such as land use projects, for example. [CEQA Guidelines Section 15168]. A Program EIR also allows for the consideration of broad policy alternatives and program-wide mitigation measures at an early time when an agency has greater flexibility to deal with basic problems or cumulative impacts. [CEQA Guidelines Section 15168 (b)(4)]. Lastly, a Program EIR also plays an important role in establishing a structure within which a CEQA review of future related actions can be effectively conducted. A Program EIR, by design, provides the basis for future environmental analyses and will allow future project-specific CEQA documents, if necessary, to focus solely on the new effects or detailed environmental issues not previously considered. If an agency finds that no new effects could occur, or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the Program EIR and no new environmental document would be required. [CEQA Guidelines Section 15168(c)(2)].

The Final Program EIR for the 2016 AQMP analyzed the impacts of the 2016 AQMP project on 18 environmental topic areas: aesthetics, agriculture and forestry resources, air quality and greenhouse gas 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, transportation and traffic, and mandatory findings of significance. In 2019, the CEQA Guidelines were amended to add the environmental topic areas of tribal cultural resources and wildfires, and the transportation analysis was changed from Level of Service (LOS) to Vehicle Miles Traveled (VMT) with a corresponding update to the name of the environmental topic area from “transportation and traffic” to “transportation.” Thus, the Final Program EIR for the 2022 AQMP analyzed the impacts of implementing the various control measures in the 2022 AQMP on 19 environmental topic areas: aesthetics, agriculture and forestry resources, air quality and greenhouse gas emissions, biological resources, cultural and tribal 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, transportation, wildfire, and mandatory findings of significance.

The Final Program EIR for the 2022 AQMP concluded that the implementation of all of the control measures in the 2022 AQMP would result in potentially significant impacts for the following environmental topic areas: air quality and GHG, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste. All other environmental topic areas were either concluded to have less than significant impacts or no impact. Mitigation measures to minimize significant impacts from implementation of the 2022 AQMP were adopted in the Mitigation, Monitoring, and Reporting Plan which

can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP.[5]

The Final Program EIR for the 2016 AQMP concluded that the implementation of all of the control measures in the 2016 AQMP would result in potentially significant impacts for the following environmental topic areas: aesthetics, air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic. All other environmental topic areas were either concluded to have less than significant impacts or no impact. Mitigation measures to minimize significant impacts from implementation of the 2016 AQMP were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP.[6]

While the Final Program EIR for the 2016 AQMP concluded potentially significant aesthetics impacts from implementation of the 2016 AQMP, the 2016 AQMP control measures that the PM2.5 Plan relies on: control measures BCM-01 through BCM-07, and BCM-09 through BCM-10, were concluded to have no potential adverse aesthetics impacts. Because no 2022 AQMP control measures were concluded to have potential adverse aesthetics impacts either, implementation of the PM2.5 Plan will not have potential adverse aesthetics impacts. For this reason, this analysis of environmental impacts from implementation of the PM2.5 Plan will not discuss aesthetics as a potential adverse impact.

Table VIII-2 summarizes the 2022 AQMP and 2016 AQMP control measures upon which the PM2.5 Plan control measures rely, their effect of implementation and nature of potential impact(s), and which of the environmental topic areas are potentially adversely impacted by implementation of a specific control measure. The control measures are presented and organized in the same manner as in Table VIII-1.

[5] South Coast AQMD, Attachment 1 to the Governing Board Resolution for the Final Program Environmental Impact Report for the 2022 Air Quality Management Plan, December 2022. https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf

[6] South Coast AQMD, Attachment 2 to the Governing Board Resolution for the Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf

TABLE VIII-2
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
R-CMB-01 in 2022 AQMP	Emission Reductions from Replacement with Zero Emission or Low NOx Appliances – Residential Water Heating	Installation of zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences may cause impacts to: 1) air quality and GHGs during minor construction activities and from utilities producing more electricity; 2) energy due to a potential increased demand for electricity which may be produced from natural gas; and 3) noise and solid waste during minor construction activities.		X	X			X	X	
R-CMB-02 in 2022 AQMP	Emission Reductions from Replacement with Zero Emission or Low NOx Appliances – Residential Space Heating	Installation of zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences may cause impacts to: 1) air quality and GHGs during minor construction activities and from utilities producing more electricity; 2) energy due to a potential increased demand for electricity which may be produced from natural gas; and 3) noise and solid waste during minor construction activities.		X	X			X	X	
R-CMB-03 in 2022 AQMP	Emission Reductions from Residential Cooking Devices	Installation of electric cooking devices, induction cooktops, or low-NOx burners in new and existing residences may cause impacts to: 1) air quality and GHGs during minor construction activities and from utilities producing more electricity; 2) energy due to a potential increased demand for electricity which may be produced from natural gas; and 3) noise and solid waste during minor construction activities.		X	X			X	X	
R-CMB-04 in 2022 AQMP	Emission Reductions from Replacement with Zero Emission or Low NOx Appliances – Residential Other Combustion Sources	Installation of zero emission or low NOx technologies in new and existing residences to replace equipment such as pool heaters, dryers, grills, etc. may cause impacts to: 1) air quality and GHGs during minor construction activities and from utilities producing more electricity; 2) energy due to a potential increased demand for electricity which may be produced by natural gas; and 3) noise and solid waste during minor construction activities.		X	X			X	X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
L-CMB-04 in 2022 AQMP	Emission Reductions from Emergency Standby Engines	Installation of zero emission and low NOx technology alternatives to emergency ICEs may cause impacts to: 1) air quality and GHGs during minor construction, and from utilities producing more electricity and hydrogen; 2) energy due to a potential increased demand for electricity and hydrogen which may be produced by natural gas and natural gas to operate new equipment; 3) hazards associated with the increased production of hydrogen; and 4) noise and solid waste during minor construction activities.		X	X	X		X	X	
L-CMB-06 in 2022 AQMP	NOx Emission Reductions from Electricity Generating Facilities	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines may result in the installation and operation of additional NOx pollution control equipment, including SCRs which may cause impacts to: 1) air quality and GHGs during construction, due to the potential use of ammonia during operation of SCR equipment, if installed, and the periodic replacement of catalyst and from utilities producing more electricity and hydrogen; 2) energy due to a potential increased demand for electricity which may be produced by natural gas and hydrogen and natural gas to operate new equipment; 3) hazards and hazardous materials due to the potential use of ammonia during operation of SCR equipment, if installed, and increased hydrogen production; 4) hydrology and water quality if new steam turbines are installed; 5) noise during construction; and 6) solid waste due to disposal of replaced equipment and spent SCR catalyst during operation.		X	X	X	X	X	X	
L-CMB-09 in 2022 AQMP	NOx Reductions from Incinerators	Installation of low NOx and ultra low NOx burners for incinerators and other associated equipment may cause impacts to: 1) air quality and GHGs during minor construction activities; and 2) noise and solid waste during minor construction activities.		X				X	X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
ECC-01 in 2022 AQMP	Co-Benefits from Existing and Future Greenhouse Gas Programs, Policies, and Incentives	Evaluating renewable energy targets with existing and further GHG emission reduction mechanisms, including market, incentive and rebate programs, and promoting the implementation and development of new technologies, which may involve the use of electricity in order to reduce emissions of criteria air pollutants and GHGs, may cause impacts to energy due to potential increased demand for electricity.			X					
ECC-02 in 2022 AQMP	Co-Benefits from Existing and Future Residential and Commercial Building Energy Efficiency Measures	Quantifying the criteria air pollutant and GHG emission reduction benefits from existing and future energy efficiency programs adopted by other regulatory authorities (e.g., improving weatherization and energy efficiency) is an administrative exercise with no impacts.	X							
ECC-03 in 2022 AQMP	Additional Enhancements in Reducing Existing Residential Building Energy Use	Incentivizing additional reductions in energy use associated with space heating, water heating, and other large residential energy sources through facilitating weatherization, replacing older appliances with highly efficient technologies and encouraging renewable energy adoption such as solar thermal and photovoltaics may reduce emissions of criteria air pollutants and GHGs but may also cause impacts to air quality and GHGs, noise, and solid waste during construction.		X				X	X	
BCM-04 in 2016 AQMP	Emission Reductions from Manure Management Strategies	Hazard, water, and waste impacts associated with acidifier application, manure removal, and manure slurry injection. Air and energy impacts associated with poultry manure thermal gasification. No impacts associated with dietary manipulation/feed additives.		X	X	X	X		X	X
BCM-05 in 2016 AQMP	Ammonia Emission Reduction from NOx Controls	Air, energy, hazard, and waste impacts associated with the use SCR control equipment. Air, noise, and traffic impacts associated with construction activities.		X	X	X		X	X	X

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
BCM-10 in 2016 AQMP	Emission Reductions from Greenwaste Composting	Air, energy, hazard, water, and waste impacts associated with controls such as anaerobic digestion and organic processing technology. No impacts associated with improved emissions characterization or restrictions for direct applications of un-composted waste to public lands.		X	X		X		X	
BCM-01 in 2016 AQMP	Further Emission Reductions from Commercial Cooking	Air, water, and waste impacts associated with installation and operation of control equipment, such as ESPs, filters, centrifugal separators, and misters. Energy impacts associated with electricity used to operate equipment.		X	X		X		X	
BCM-02 in 2016 AQMP	Emission Reductions from Cooling Towers	Air impacts associated with installation of drift elimination technologies. Waste impacts associated with disposal of deconstructed equipment and replacement. Water savings.		X					X	
BCM-03 in 2016 AQMP	Further Emission Reductions from Paved Road Dust Sources	Water impacts associated with required wheel washing systems. Potential noise, traffic, and waste impacts associated with minimum street sweeping frequencies and enhanced street cleaning or enhanced best management practices.					X	X	X	X
BCM-06 in 2016 AQMP	Emission Reductions from Abrasive Blasting Operations	Air, noise, and traffic impacts associated with construction of exhaust ventilation to a fabric filter for permanent in-building abrasive blasting activities. Energy and waste impacts associated with the use of additional portable control equipment, such as negative air machines, portable fume extractors and portable dust collectors with HEPA filters.		X	X			X	X	X
BCM-07 in 2016 AQMP	Emission Reductions from Stone Grinding, Cutting and Polishing Operations	Air, noise, and traffic impacts associated with construction of engineering controls, such as exhaust ventilation with dust collectors. Energy impacts associated with the use of engineering controls. Water impacts associated with wet methods to prevent dust release. Waste impacts associated with housekeeping measures, such as vacuuming with HEPA filter, wet-wiping, or wet sweeping.		X	X		X	X	X	X

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MCS-02 in 2022 AQMP	Wildfire Prevention	Mechanical thinning and chipping activities during fuel reduction and removal efforts may cause impacts to: 1) air quality and GHGs associated with decomposition of greenwaste/woodwaste; 2) hazards (potential fire hazard during chipping and grinding activities); 3) hydrology (increased water use for composting); 4) noise due to chipping and grinding; and 5) solid waste (collected greenwaste/woodwaste).		X		X	X	X	X	
BCM-09 in 2016 AQMP	Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves	Air and waste impacts associated with the construction/upgrading of wood-burning hearths to cleaner hearths. Energy impacts associated with cleaner hearths, such as natural gas or electric hearths. No impacts associated with increasing the stringency of the curtailment program or with education.		X	X				X	X
MCS-01 in 2022 AQMP	Application of All Feasible Measures	Retrofitting existing equipment and installation of newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations may cause impacts to: 1) air quality and GHGs during construction and due to the potential use of ammonia during operation of SCR equipment, if installed, and the periodic replacement of catalyst; 2) energy due to a potential increased demand in electricity to operate new equipment; 3) hazards and hazardous materials due to the potential use of ammonia during operation of SCR equipment, if installed; 4) noise during construction; and 5) solid and hazardous waste due to potential replacement of burners during construction and spent SCR catalyst during operation.		X	X	X		X	X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
EGM-01 in 2022 AQMP	Emission Reductions from New Development and Redevelopment (NOTE: Potential Indirect Source Rule and ports affected).	Replacing or upgrading off-road construction equipment as part of development/redevelopment efforts may result in the use of zero-emission technologies in construction, the installation of charging and alternative fueling infrastructure, the use of alternative fuels; and the use construction equipment with low-emitting engines fitted with diesel PM filters, may cause impacts to: 1) air quality and GHGs during construction and the periodic replacement of diesel PM filters; 2) energy due to a potential increased demand in electricity to operate vehicles, rail, or new equipment; 3) hazards associated with the increased alternative fuels production (e.g., hydrogen); 4) noise during construction; and 5) solid waste due to potential replacement of diesel PM filters.		X	X	X		X	X	
EGM-03 in 2022 AQMP	Emission Reductions from Clean Construction Policy	Incentivizing the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, diesel PM filtration, low-emitting engines, and low VOC materials. Implementation of this control measure may cause impacts to: 1) air quality and GHGs from installing electricity charging infrastructure and utilities producing more electricity; 2) energy due to a potential increased demand for electricity which may be produced from natural gas; and 3) noise and solid waste during minor construction activities.		X	X	X		X	X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MOB-01 in 2022 AQMP	Emission Reductions at Commercial Marine Ports	Infrastructure development required to achieve emission reductions at commercial marine ports from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft may cause impacts to: 1) air quality and GHGs from construction activities and the combustion of alternative fuels; 2) energy due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas; 3) hazards and hazardous materials associated with engine replacements; 4) noise during construction; and 5) solid and hazardous waste associated with engine replacements.		X	X	X		X	X	
MOB-02A in 2022 AQMP	Emission Reductions at New Rail Yards and Intermodal Facilities	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives may cause impacts to: 1) air quality and GHGs from construction activities and the combustion of alternative fuels; 2) energy due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas; 3) hazards and hazardous materials associated with engine replacements; 4) noise during construction; and 5) solid and hazardous waste associated with engine replacements.		X	X	X		X	X	
MOB-02B in 2022 AQMP	Emission Reductions at Existing Rail Yards and Intermodal Facilities	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives may cause impacts to: 1) air quality and GHGs from construction activities and the combustion of alternative fuels; 2) energy due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas; 3) hazards and hazardous materials associated with engine replacements; 4) noise during construction; and 5) solid and hazardous waste associated with engine replacements.		X	X	X		X	X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MOB-03 in 2022 AQMP	Emission Reductions at Warehouse Distribution Centers	Reducing emissions and exposure of mobile sources associated with warehouse distribution centers by requiring actions or investments to offset the emissions of the mobile sources (trucks) attracted to the warehouses has been executed in Rule 2305 which was adopted by the South Coast AQMD Governing Board on May 7, 2021. The environmental effects from implementing Rule 2305 were previously analyzed in the certified Final Environmental Assessment.[7] Since this control measure does not propose any additional elements for achieving emission reductions at warehouse distribution centers, no new impact areas have been identified.	X							
MOB-04 in 2022 AQMP	Emission Reductions at Commercial Airports	Deploying additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, diesel PM filters, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports may cause impacts to: 1) air quality and GHGs during minor construction activities and from utilities producing more electricity and hydrogen; 2) energy due to a potential increased demand for electricity and hydrogen; 3) hazards and hazardous materials associated with increased production of alternative fuels (e.g., hydrogen); and 4) noise and solid waste during construction.		X	X	X		X	X	

[7] South Coast AQMD, Final Environmental Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments To Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305, May 2021. https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2021/attachment_j_pr2305_finalea.pdf

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MOB-05 in 2022 AQMP	Accelerated Retirement of Older Light-Duty and Medium-duty Vehicles	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles may cause impacts to: 1) air quality and GHGs during construction of infrastructure, from scrapping retired vehicles, and from utilities producing more electricity and refineries manufacturing more hydrogen; 2) energy due to potential increased demand for electricity produced by, natural gas, and hydrogen; 3) hazards and hazardous materials from the use of alternative fuels and fuel additives and scrapping retired vehicles; 4) hydrology and water quality(surface and ground water) from accidental spills; 5) noise during construction; and 6) solid and hazardous waste from scrapping retired vehicles and disposal of batteries and fluids.		X	X	X	X	X	X	
MOB-06 in 2022 AQMP	Accelerated Retirement of Older On-Road Heavy-duty Vehicles	Retiring older, heavy-duty vehicles and replacing them with low-NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells) may cause impacts to: 1) air quality and GHGs from construction activities associated with installing electric charging infrastructure, scrapping retired vehicles, combusting alternative fuels, and refineries manufacturing more hydrogen and other alternative fuels; 2) energy due to potential increased demand for electricity produced from, natural gas, and hydrogen; 3) hazards and hazardous materials from scrapping retired vehicles and disposal of batteries and fluids and increased production of alternative fuels; 4) hydrology and water quality (surface and ground water) from disposal of batteries and fluids and accidental spills; 5) noise during construction; and 6) solid and hazardous waste from scrapping retired vehicles and disposal of batteries and fluids.		X	X	X	X	X	X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MOB-07 in 2022 AQMP	On-Road Mobile Source Emission Reduction Credit Generating Program	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits may cause impacts to: 1) air quality and GHGs from construction activities associated with installing electric charging infrastructure, scrapping retired vehicles, combusting alternative fuels, and refineries manufacturing more hydrogen and other alternative fuels; and 2) energy due to potential increased demand for electricity, natural gas and hydrogen; 3) hazards and hazardous materials from scrapping retired vehicles and disposal of batteries and fluids and increased production of alternative fuels (e.g., hydrogen); 4) hydrology and water quality (surface and ground water) from disposal of batteries and fluids and accidental spills; 5) noise during construction ; and 6) solid and hazardous waste from scrapping retired vehicles and disposal of batteries and fluids.		X	X	X	X	X	X	
MOB-08 in 2022 AQMP	Small Off-Road Engine Equipment Exchange Program	Promoting the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs will contribute to the retirement of older off-road engines which may cause impacts to: 1) air quality and GHGs from scrapping retired equipment; 2) energy due to potential increased demand for electricity; 3) hazards and hazardous materials from scrapping retired equipment and disposal of batteries and fluids; 4) hydrology and water quality (surface and ground water) from disposal of batteries and fluids and accidental spills; and 5) solid and hazardous waste from scrapping retired equipment and disposal of batteries and fluids.		X	X	X	X		X	

TABLE VIII-2 (continued)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MOB-09 in 2022 AQMP	Further Emission Reductions from Passenger Locomotives	Promoting earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells) may cause impacts to: 1) air quality and GHGs from construction activities installing electric charging infrastructure and the combustion of alternative fuels, and refineries manufacturing more hydrogen and other alternative fuels; 2) energy due to potential increased demand for electricity produced from natural gas, and hydrogen; 3) hazards and hazardous materials from scrapping retired locomotives and increased production and use of alternative fuels; 4) noise during construction; and 5) solid and hazardous waste from scrapping retired locomotives.		X	X	X		X	X	
MOB-10 in 2022 AQMP	Off-Road Mobile Source Emission Reduction Credit Generation Program	Accelerating the deployment of zero (e.g. battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding may cause impacts to: 1) air quality and GHGs from construction activities installing electric charging infrastructure and the combustion of alternative fuels, and refineries manufacturing more hydrogen and other alternative fuels; 2) energy due to potential increased demand for electricity, produced from natural gas, and hydrogen; 3) hazards and hazardous materials associated with the increased production and use of alternative fuels and fuel additives; 4) noise during construction; and 5) solid and hazardous waste from scrapping retired equipment.		X	X	X		X	X	

TABLE VIII-2 (concluded)
ENVIRONMENTAL TOPIC AREAS ADVERSELY IMPACTED BY AQMP CONTROL MEASURES

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)							
			No Impact	Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste	Transportation
MOB-11 in 2022 AQMP	Emission Reductions from Incentive Programs	Allowing the South Coast AQMD to take credit for emission reductions for SIP purposes achieved through past and future projects (e.g., replacing heavy-duty vehicle/equipment, installing retrofit units, and repowering engines for marine vessels, locomotives, trucks, school buses, agricultural equipment, construction equipment, commercial harbor craft, airport support equipment, and oil drilling equipment) is an administrative exercise which is not expected to cause any environmental impacts.	X							
MOB-12 in 2022 AQMP	Pacific Rim Initiative for Maritime Emission Reductions	This measure seeks to recognize ocean-going vessel emission reductions that are the result of voluntary actions and may be considered surplus to the emission reduction commitments of the State SIP Strategy "Federal Action: Cleaner fuel and Vessel Requirements for Ocean-Gong-Vessels." Allowing the South Coast AQMD to take credit for emission reductions achieved through this SIP measure is an administrative exercise which is not expected to cause any environmental impacts.	X							
MOB-14 in 2022 AQMP	Rule 2202 – On-Road Motor Vehicle Mitigation Options	Amending Rule 2202 to take into account emission reductions due to telecommuting strategies such as allowing employees to work from home is expected to provide a benefit to air quality and GHGs without causing any adverse environmental impacts.	X							

Implementation of control measures ECC-02, MOB-03, MOB-11, MOB-12, and MOB-14 of the 2022 AQMP were determined to have no impacts that required analysis under the Final Program EIR for the 2022 AQMP. More specifically, control measures ECC-02, MOB-11, MOB-12, and MOB-14 are administrative exercises with no impacts on the environment while control measure MOB-03, at the time of writing the Final Program EIR for the 2022 AQMP, was already implemented by Rule 2305 which was adopted by the South Coast AQMD Governing Board on May 7, 2021. The environmental effects from implementing Rule 2305 were previously analyzed in the certified Final Environmental Assessment. Since control measure MOB-03 did not propose any additional elements for achieving emission reductions at warehouse distribution centers, no new impact areas have been identified.

Air Quality and Greenhouse Gas Emissions

This section summarizes the potentially significant air quality and greenhouse gas emissions impacts from implementing the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The air quality and greenhouse gas emissions impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Proposed projects that do not exceed the significance threshold for the effect under evaluation normally will be determined to be less than significant. Exceeding any significance threshold means the effect will normally be determined to be significant by the lead agency. [CEQA Guidelines Sections 15064(a) and (b)(2)].

To determine whether air quality and GHG emissions impacts from the 2022 AQMP and the 2016 AQMP were significant, the Final Program EIRs for the 2022 AQMP and the 2016 AQMP estimated the potential emissions of criteria pollutants, toxic air contaminants, and GHGs and compared those estimates to the significance criteria in Table VIII-3.

TABLE VIII-3
SOUTH COAST AQMD AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds[a]		
Pollutant	**Construction**	**Operation**
NOx	100 lb/day	55 lb/day
VOC	75 lb/day	55 lb/day
PM10	150 lb/day	150 lb/day
PM2.5	55 lb/day	55 lb/day
SOx	150 lb/day	150 lb/day
CO	550 lb/day	550 lb/day
Lead	3 lb/day	3 lb/day
Toxic Air Contaminants, Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden ≥ 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality for Criteria Pollutants[b]		
NO2 1-hour average annual arithmetic mean	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)	
PM10 24-hour average annual average	 10.4 µg/m³ (construction)[c] and 2.5 µg/m³ (operation) 1.0 µg/m3	
PM2.5 24-hour average	 10.4 µg/m³ (construction)[c] and 2.5 µg/m³ (operation)	
SO2 1-hour average 24-hour average	 0.25 ppm (state) and 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	 25 µg/m³ (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)	
Lead 30-day average Rolling 3-month average	 1.5 µg/m³ (state) 0.15 µg/m³ (federal)	

a) Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

b) Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

c) Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lb/day = pounds per day ppm = parts per million µg/m3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO2eq = metric tons per year of CO2 equivalent > = greater than

Potential Air Quality and Greenhouse Gas Emissions Impacts

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified and evaluated the control measures that have the potential to generate air quality impacts. Table VIII-4 summarizes the 2022 AQMP and 2016 AQMP control measures upon which the PM2.5 Plan control measures rely, the control methodology, and the nature of the potential adverse impacts to air quality and greenhouse gas emissions. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-4

AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
R-CMB-01 in 2022 AQMP	Installation of zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; reduction in conventional fuel combustion emissions; increase energy efficiency)
R-CMB-02 in 2022 AQMP	Installation of zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; reduction in conventional fuel combustion emissions; increase energy efficiency)
R-CMB-03 in 2022 AQMP	Installation of electric cooking devices, induction cooktops, or low NOx burners in new and existing residences.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; reduction in conventional fuel combustion emissions; increase energy efficiency)
R-CMB-04 in 2022 AQMP	Installation of zero emission or low NOx technologies in new and existing residences to replace equipment such as pool heaters, dryers, grills, etc.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions reduction in conventional fuel combustion emissions; increase energy efficiency)
L-CMB-04 in 2022 AQMP	Installation of zero emission and low NOx technology alternatives to emergency ICEs, and requiring the use of renewable diesel for emergency standby ICEs.	Potential air quality impacts associated with construction; and producing and using more electricity and alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions) + (increase GHG emissions if emergency ICEs are replaced with new low NOx emergency ICEs) = (equivalent GHG emissions if existing emergency ICEs are retrofitted with low NOx technologies) - (reduce GHG emissions if existing emergency ICEs are replaced with zero emission technologies)

TABLE VIII-4 (continued)

AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.	Potential air quality impacts associated with construction; ammonia use in SCRs; periodic catalyst replacement; and producing and using more electricity and alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions) + (increase GHG emissions if existing boilers are replaced with low NOx turbines) = (equivalent GHG emissions if existing boilers are retrofitted with low NOx technologies) - (reduce GHG emissions if existing boilers are replaced with zero emission technologies)
L-CMB-09 in 2022 AQMP	Installation of low NOx and ultra-low NOx burners for incinerators and other associated equipment.	Potential air quality impacts associated with construction.	+ (construction emissions) = (equivalent GHG emissions if existing turbines are retrofitted with low NOx technologies)
ECC-03 in 2022 AQMP	Incentivization of additional reductions in energy use associated with space heating, water heating, and other large residential energy sources through facilitating weatherization, replacing older appliances with highly efficient technologies and encouraging renewable energy adoption such as solar thermal and photovoltaics.	Potential air quality impacts associated with construction.	+ (construction emissions) - (reduce GHG emissions; reduction in conventional fuel combustion emissions; increase energy efficiency)
BCM-04 in 2016 AQMP	Acidifier application, manure removal, manure slurry injection, manure thermal gasification, and dietary manipulation/feed additives.	Potential air quality impacts from thermal gasification and vehicle trips.	+ (construction emissions, control equipment)
BCM-05 in 2016 AQMP	Installation and use of advanced catalyst technology for the conversion of ammonia.	Potential air quality impacts associated with construction.	+ (construction emissions)

TABLE VIII-4 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
BCM-10 in 2016 AQMP	Controls such as anaerobic digestion and organic processing technology, and restrictions for direct applications of un-composted waste to public lands.	Potential air quality impacts associated with construction.	None contemplated in the Final Program EIR for the 2016 AQMP
BCM-01 in 2016 AQMP	Installation of control equipment such as ESPs, filters, centrifugal separators, and misters.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage)
BCM-02 in 2016 AQMP	Phased-in use of drift eliminators with 0.001 percent drift rate for existing cooling towers.	Potential air quality impacts associated with construction.	+ (construction emissions)
BCM-06 in 2016 AQMP	Exhaust ventilation to a fabric filter for permanent in-building abrasive blasting activities, and use of additional portable control equipment, such as negative air machines, portable fume extractors and portable dust collectors with HEPA filters.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage)
BCM-07 in 2016 AQMP	Dry and wet dust control options to control PM including silica particles.	Potential air quality impacts associated with construction; and producing and using more electricity.	+ (construction emissions; increase electricity usage)
MCS-02 in 2022 AQMP	Mechanical thinning and chipping and grinding activities during fuel reduction and removal efforts.	Potential air quality impacts associated with decomposition of wood and greenwaste.	+ (increase GHG from gasoline- or diesel-fueled chipping and grinding equipment is used and from decomposition of wood and greenwaste) = (no GHG emissions if zero emission chipping and grinding equipment is used) - (reduce GHG emissions from preventing or reducing potential for intense wildfires)
BCM-09 in 2016 AQMP	Construction/upgrading of wood burning hearths to cleaner hearth as well as an increase in the stringency of the curtailment program and education.	Potential air quality impacts associated with construction.	None contemplated in the Final Program EIR for the 2016 AQMP

TABLE VIII-4 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
MCS-01 in 2022 AQMP	Retrofitting existing equipment and installation of newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations.	Potential air quality impacts associated with construction; ammonia use in SCRs; and periodic catalyst replacement.	+ (construction emissions) + (increase GHG emissions if existing equipment is replaced with low NOx equipment) = (equivalent GHG emissions if existing equipment are retrofitted with low NOx technologies) - (reduce GHG emissions if existing equipment are replaced with zero emission technologies)
EGM-01 in 2022 AQMP	Replacing or upgrading off-road construction equipment as part of development/redevelopment efforts may result in the use of zero emission technologies in construction, the installation of electrical and alternative fuel infrastructure, the use of alternative fuels; and the use construction equipment with low-emitting engines fitted with diesel particulate filters (DPFs).	Potential air quality impacts associated with construction; and the periodic replacement of diesel particular filters (DPF); and producing and using more electricity and alternative fuels.	+ (construction emissions; increase electricity usage) + (increase GHG emissions if existing equipment is replaced with low NOx equipment) = (equivalent GHG emissions if existing equipment are retrofitted with low NOx technologies) - (reduce GHG emissions if existing equipment are replaced with zero emission technologies)
EGM-03 in 2022 AQMP	Incentivizing the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, DPF, low-emitting engines, and low VOC materials.	Potential air quality impacts associated with construction of electrical and alternative fuel infrastructure; and producing and using more electricity and alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-01 in 2022 AQMP	Infrastructure development required to achieve emission reductions at commercial marine ports from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft.	Potential air quality impacts associated with construction; and the combustion of alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)

TABLE VIII-4 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
MOB-2A in 2022 AQMP	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	Potential air quality impacts associated with construction; and the combustion of alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-2B in 2022 AQMP	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	Potential air quality impacts associated with construction; and the combustion of alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-04 in 2022 AQMP	Deploying additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, DPFs, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports.	Potential air quality impacts associated with construction; and producing and using more electricity and alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)

TABLE VIII-4 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
MOB-05 in 2022 AQMP	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.	Potential air quality impacts during construction of infrastructure, from scrapping retired vehicles, and from utilities producing and using more electricity and alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-06 in 2022 AQMP	Retiring older, heavy-duty vehicles and replacing them with low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).	Potential air quality impacts from construction activities associated with installing electrical and alternative fuel infrastructure, scrapping retired vehicles; and producing and using more alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-07 in 2022 AQMP	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.	Potential air quality impacts from construction activities associated with installing electrical and alternative fuel infrastructure; scrapping retired vehicles and producing and using more alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-08 in 2022 AQMP	Promoting the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs will contribute to the retirement of older off-road engines.	Potential air quality impacts from scrapping retired equipment.	+ (increased electricity usage from scrapping equipment) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)

TABLE VIII-4 (concluded)
AQMP CONTROL MEASURES WITH POTENTIAL AIR QUALITY AND GHG IMPACTS

Control Measure Number	Control Methodology	Potential Air Quality Impact	Potential GHG Impact
MOB-09 in 2022 AQMP	Promoting earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).	Potential air quality impacts from construction activities associated with installing electrical and alternative fuel infrastructure; and producing and using more alternative fuels,	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)
MOB-10 in 2022 AQMP	Accelerating the deployment of zero (e.g., battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding.	Potential air quality from construction activities associated with installing electrical and alternative fuel infrastructure; and producing and using more alternative fuels.	+ (construction emissions; increase electricity usage) - (reduce GHG emissions; conversion to alternative fuels; reduction in conventional fuel combustion emissions)

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2022 AQMP control measures presented in Table VIII-4 have the following potential impacts to: 1) air quality during construction impacts; 2) operational air quality impacts associated with producing and using more electricity and alternative fuels, ammonia use in SCRs, decomposition of wood and greenwaste, periodic replacement of catalyst, periodic replacement of DPF, and scrapping retired vehicles and equipment; and 3) greenhouse gas emissions impacts associated with construction, increased electricity usage, and replacement of existing equipment with low NOx equipment.

Summary of Construction Air Quality Impacts

The Final Program EIR for the 2022 AQMP presented construction emissions associated with burner replacements, installation of a new SCR with an ammonia storage tank, upgrade to an SCR, and conversion of an alternative fuels facility. While individually, most components of the construction activities would not have emissions exceeding the South Coast AQMD's air quality significance thresholds, it is foreseeable and likely that on any given day, construction activities associated with one or more new or existing air pollution control devices overlapping with other types of construction activities associated with producing alternative fuels in order to comply with the 2022 AQMP could occur at more than one facility. Therefore, the Final Program EIR for the 2022 AQMP concluded that construction air quality impacts are potentially

significant, mitigation measures AQ-1 to AQ-26 should be implemented to minimize significant air quality impacts, but overall construction air quality impacts after mitigation is applied would remain significant.

Summary of Operational Air Quality Impacts

Table VIII-5 summarizes the nature of the operational air quality emission impacts analyzed in the Final Program EIR for the 2022 AQMP by category, and lists the significance determination for each.

TABLE VIII-5
SUMMARY OF OPERATIONAL AIR QUALITY IMPACTS

Category	Nature of Emission Impacts	Significance Determination
Air Quality Impacts from Increased Electricity Demand		
Electrification of Residential and Commercial Equipment	Increase in electricity use but a decrease in natural gas use with overall net reduction in combustion emissions	Less than Significant
Large Industrial Combustion Equipment including Hydrogen Production	Increase in electricity use	Potentially Significant
Mobile Source Conversion	Increase in electricity use but a decrease in diesel and gasoline combustion emissions with overall net reduction in combustion emissions	Less than Significant
Air Quality Impacts from Control of Stationary and Area Sources		
SCR Technology	Increase in ammonia slip emissions but with an overall reduction in PM2.5 regionwide concentration	Less than Significant
Alternative Fuels Production	Conversions of existing facilities to produce renewable fuels could result in emission reductions, but the actual outcome will vary depending on site-specific conditions. Since the current supplies of hydrogen production for the purposes of producing renewable fuels are limited, assumed additional hydrogen production facilities would need to be built and operating.	Potentially Significant if new hydrogen production facilities are built and operating
Air Quality Impacts from Mobile Sources		
Alternative Fuels Use	Alternative fuel use would reduce emissions (alternative fuels production impacts presented separately above).	Less than Significant
Zero Emission Technology Deployment	Emission reduction (electricity production impacts presented separately above).	Less than Significant
Add-on Controls	Reduced fuel economy results in increase in emissions.	Less than Significant
Vehicle Scrapping	Increase in PM10 and PM2.5 emissions.	Less than Significant

TABLE VIII-5 (concluded)
SUMMARY OF OPERATIONAL AIR QUALITY IMPACTS

Category	Nature of Emission Impacts	Significance Determination
Air Quality Impacts from Miscellaneous Sources		
Chipping and Grinding for Wildfire Control	Increase in combustion emissions from chipping and grinding equipment	Less than Significant

The analysis in the Final Program EIR for the 2022 AQMP indicated that the air quality impacts from criteria pollutants were expected from producing electricity needed to meet the increased demand, operating air pollution control equipment installed on various stationary and area sources, proposed emission reduction methods for mobile sources, and proposed control of miscellaneous sources. Use of electric-powered equipment (for short-term construction use or in long-term residential and commercial, large, and mobile sources) would cause associated emissions from increased electricity demand, but these replace combustion emissions that would otherwise occur with use of diesel- or gasoline-powered equipment, ultimately expected to provide an emissions benefit. The identified air pollution control options for stationary and area sources include SCR technology , and alternative fuels production (based on the three renewable fuels projects approved in California, has the potential to decrease mobile source emissions and increase facility emissions). The identified air pollution control options for mobile sources will have air quality impacts relating to electricity demand, alternative fuels production, vehicle scrapping, and add-on air pollution control equipment; but these air quality impacts would be less than significant. Lastly, the control measures focusing on achieving emission reductions from miscellaneous sources, such as from increased chipping and grinding operations in control measure MCS-02 of the 2022 AQMP, were not expected to generate significant adverse air quality impacts.

The South Coast AQMD air quality significance thresholds for mass daily emissions of criteria pollutants are in units of pounds per day. The 2022 AQMP quantifies NOx reductions in tons per day (2,000 pounds = 1 ton). The 2022 AQMP is designed to attain the 8-hour ozone standard by reducing NOx and to a lesser degree VOC emissions. Other emissions of criteria pollutants (i.e., CO, SOx, PM10, and PM2.5) are also expected to be reduced. While most of the activities associated with the adopted control measures were individually projected to have air quality impacts that are less than significant, activities associated with implementation of some individual control measures (i.e., increased electricity demand for large combustion equipment including hydrogen production, alternative fuels production, and product reformulation) may result in potentially significant impacts. The precise magnitude of those emission increases is dependent on the type and size of projects designed to comply with the control measures, and the quantification of the emissions impacts was not known at the time the 2022 AQMP was adopted and is not currently known because implementation of the control measures are in the early stages. Nonetheless, when the effects of all of the control measures were considered together, a net NOx emission reduction of 124 tons per day was expected, which is an order of magnitude greater than any of the adverse air quality impacts from some of the individual control measures. Thus, the 2022 AQMP was expected to achieve an overall air quality benefit. Therefore, the Final Program EIR for the 2022 AQMP concluded that operational air quality impacts are less than significant. Since no significant air quality

impacts relating to operational activities were identified, no mitigation measures were necessary or required.

Summary of Other Air Quality Impacts

Implementing the control measures were concluded to be capable of reducing emissions of carcinogenic diesel PM from engine exhaust, as well as toxic components of gasoline such as benzene and 1,3-butadiene through the replacement of existing vehicles or equipment with more efficient, zero emission, or alternative fueled vehicles or equipment. Therefore, the Final Program EIR for the 2022 AQMP concluded no significant air quality impacts relating to toxic air contaminants. Since no significant air quality impacts relating to toxic air contaminants were identified, no mitigation measures were necessary or required.

Construction activities and increased ammonia use have the potential to create odors; however, construction odors were anticipated to be low in concentration, temporary, and not expected to affect a substantial amount of people. Ammonia emissions from SCR exhaust stacks are required to comply with BACT and are limited by permit condition to 5 ppm. Due to the low concentration, elevated release height, elevated temperature, and buoyancy, ammonia slip emissions were concluded to not have the potential to cause an odor nuisance. Therefore, the Final Program EIR for the 2022 AQMP concluded less than significant air quality impacts relating to odor. Since no significant air quality impacts relating to odor were identified, no mitigation measures were necessary or required.

Summary of Greenhouse Gas Emissions Impacts

Many control measures were concluded to have GHG emissions associated with construction over the short-term; however, construction GHG emissions are amortized over 30 years and are much less than the overall potential operational emissions reductions of GHGs over the long-term. Intermixed with the short-term GHG impacts and long-term GHG emission reductions are the potentially significant GHG increases that may occur if existing combustion equipment is replaced with new lower NOx emitting combustion equipment. Further, GHG emissions from the generation and use of additional electricity and alternative fuels, are not expected to be significant because there will be concurrent decreases in the use of diesel- and gasoline-fueled equipment over time as more electric and alternative fuel vehicles are deployed. Finally, electricity generation is required to transition to 100 percent renewables by 2045 as required by Senate Bill 100. Thus, implementation of the 2022 AQMP was concluded to result in potentially significant GHG operational emissions over the short-term and less than significant GHG emission impacts over the long-term. Since less than significant greenhouse gas impacts overall were identified, no mitigation measures were necessary or required.

Analysis in the Final Program EIR for the 2016 AQMP

The analysis in the Final Program EIR for the 2016 AQMP indicated that the 2016 AQMP control measures presented in Table VIII-4 have the following potential impacts to: 1) air quality during construction; 2) operational air quality impacts associated with producing and using more electricity, and thermal

gasification; and 3) greenhouse gas emissions impacts associated with construction and increased electricity usage.

Summary of Construction Air Quality Impacts

The Final Program EIR for the 2016 AQMP identified construction emissions associated with grading/site preparation, paving, and installing/constructing air pollution control devices. Although the construction emissions at each individual facility might not exceed the South Coast AQMD's air quality significance thresholds, the analysis concluded that it is foreseeable and likely that on any given day, construction of one or more control devices in order to comply with the 2016 AQMP could occur at more than one facility. If more than four facilities or more than four control devices were concurrently constructed on any given day, the emissions would exceed the South Coast AQMD's air quality significance thresholds. Therefore, the Final Program EIR for the 2016 AQMP concluded that construction air quality impacts are potentially significant and mitigation measures AQ-1 to AQ-23 were crafted and adopted with the intent of minimizing the significant air quality impacts. However, the analysis concluded that the overall construction air quality impacts would remain significant after mitigation is applied.

Summary of Operational Air Quality Impacts

Control measures BCM-01, BCM-06, and BCM-07 of the 2016 AQMP seek further control of PM emissions through control devices or technologies which typically require electricity to operate. The 2016 AQMP concluded that increased electricity demand would occur; however, the existing and future air quality and GHG rules and regulations were expected to minimize operational emissions associated with increased electrical generation because electricity providers committed to meeting the increased demand while complying with applicable regulations, and future sources of electricity were increasingly being generated by renewable resources. Therefore, implementation of the 2016 AQMP control measures was concluded not to generate significant adverse air quality impacts due to increased demand for electricity.

The goal of control measure BCM-04 of the 2016 AQMP is to reduce ammonia emissions from livestock waste, with an emphasis on reducing emissions from dairy manure. A number of control approaches could be implemented to achieve these reductions, but only thermal gasification was identified as having the potential to generate air quality impacts from control equipment operation. Thermal gasification, as applied to chicken manure generated during egg-laying, for example, requires a reduction in the manure moisture content by approximately 20 percent. To achieve this reduction in moisture content, the chicken manure is fed into a thermal gasifier where moisture is evaporated, organic solids are converted into "syngas," and mineral-rich ash is produced. Because thermal gasification requires a combustion source, combustion emissions, including NOx, are generated. Thermal gasification related to manure management was in the testing stages, so the technology was not expected to be widespread and any air quality impacts were considered to be minimal. Two other methods of control would be to apply sodium bisulfate (SBS) which reduces the pH level in manure and thus reduces ammonia spiking, or increasing the manure cleaning frequency. Because the application of sodium bisulfate may only be needed for eight weeks out of the year, and manure haul truck trips would not occur on the same day as haul truck trips that were

then currently occurring, implementation of control measure BCM-04 of the 2016 AQMP was not expected to generate a substantial number of new vehicle trips on a peak day, if any, related to control requirements.

The Final Program EIR for the 2016 AQMP concluded that operational air quality impacts were less than significant. Since no significant air quality impacts relating to operational activities were identified, no mitigation measures were necessary or required.

Summary of Greenhouse Gas Emissions Impacts

The analysis in the Final Program EIR of the 2016 AQMP control measures BCM-01, BCM-02, BCM-04, BCM-05, BCM-06, and BCM-07 concluded that while GHG emissions associated with construction would occur over the short-term, because construction GHG emissions are amortized over 30 years, the net GHG emissions during construction would be much less than the overall potential reductions of operational GHGs over the long-term.

The analysis in the Final Program EIR of the 2016 AQMP control measures BCM-01, BCM-06, and BCM-07 concluded that the project would have the potential to increase energy demand using electricity to power control devices. The electricity needed to power these control measures was expected to be provided by public utility companies subject to AB-32 and required to reduce GHG emissions by 2020, and any future power generating stations would be subject to stringent emission control requirements, including GHG emissions. Therefore, the need for additional electricity generation in order to provide power to operate the projected add-on control devices was not expected to generate significant adverse GHG emissions, after taking into account the reductions expected to result from the decreased use of gasoline and diesel fuels from the 2016 AQMP's other control measures.

The Final Program EIR for the 2016 AQMP concluded that greenhouse gas emissions impacts were less than significant. Since no significant greenhouse gas emissions impacts were identified, no mitigation measures were necessary or required.

Mitigation Measures

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP developed targeted mitigation measures based on project-specific impacts related to air quality which were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP and the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP, respectively, and are applicable to the proposed PM2.5 Plan control measures. These measures were crafted to reduce particulate emissions, including diesel PM, as well as certain NOx and VOC emissions. However, only a portion of the mitigation measures adopted for the 2022 AQMP and the 2016 AQMP are applicable to PM2.5 Plan control measures, as follows:

Construction Air Quality Mitigation Measures in the Final Program EIR for the 2022 AQMP

AQ-1 Develop a Construction Emission Management Plan to minimize emissions from vehicles including, but not limited to: consolidating truck deliveries so as to minimize the number of trucks on a peak day; scheduling deliveries to avoid peak hour traffic conditions; describing truck routing; describing deliveries including logging delivery times; describing entry/exit points; identifying locations of parking; identifying construction schedule; and prohibiting truck idling in excess of five consecutive minutes or another time-frame as allowed by the California Code of Regulations, Title 13 Section 2485 - CARB's Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. The Construction Emission Management Plan shall be submitted to South Coast AQMD – PRDI/CEQA for approval prior to the start of construction. At a minimum, the Construction Emission Management Plan would include the following types of mitigation measures and Best Management Practices.

AQ-2 Tune and maintain all construction equipment to be in compliance with the manufacturer's recommended maintenance schedule and specifications that optimize emissions without nullifying engine warranties. All maintenance records for each equipment and their construction contractor(s) shall be made available for inspection and remain onsite for a period of at least two years from completion of construction.

AQ-3 Survey and document the construction areas and identify all construction areas that are served by electricity. Onsite electricity, rather than temporary power generators, shall be used in all construction areas that are demonstrated to be served by electricity. This documentation shall be provided as part of the Construction Emissions Management Plan.

AQ-4 Require the use of electric or alternative-fueled (i.e., renewable combustion fuels and hydrogen) construction equipment, if available, including but not limited to, concrete/industrial saws, pumps, aerial lifts, material hoist, air compressors, forklifts, excavator, wheel loader, and soil compactors.

AQ-5 Require all off-road diesel-powered construction equipment rated greater than 50 hp to meet Tier-4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. Construction equipment shall incorporate, where feasible, emissions-reducing technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, the project proponent shall provide documentation in the Construction Emissions Management Plan or associated subsequent status reports as information becomes available.

AQ-6 Require the use of zero-emission (ZE) or near-zero emission (NZE) on-road haul trucks such as heavy-duty trucks with natural gas engines that meet CARB'S adopted optional NO_X emissions standard.

AQ-7 Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure and electrical panels which shall be appropriately sized. Electrical hookups should be provided for trucks to plug in any onboard auxiliary equipment.

AQ-8 Provide temporary traffic controls such as a flag person, during all phases of significant construction activity to maintain smooth traffic flow, where necessary.

AQ-9 Provide dedicated turn lanes for the movement of construction trucks and equipment on- and off-site, where applicable.

AQ-10 Clearly identify truck routes with trailblazer signs to guide and ensure that the route shall avoid congested streets and sensitive land uses (e.g., residences, schools, day care centers, etc.), where applicable

AQ-11 Improve traffic flow by signal synchronization, where applicable and ensure that check-in point for trucks is inside the project site.

AQ-12 Ensure that vehicle traffic inside the project site is as far away as feasible from sensitive receptors.

AQ- 13 Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the project site.

AQ-14 Design the project such that truck entrances and exits are not facing sensitive receptors and trucks will not travel past sensitive land uses to enter or leave the project site.

AQ-15 Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.

AQ-16 Prohibit truck idling in excess of five minutes, on- and off-site.

AQ-17 Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable.

AQ-18 Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.

AQ-19 Suspend use of all construction activities that generate air pollutant emissions during first stage smog alerts.

AQ-20 Configure construction parking to minimize traffic interference.

AQ-21 Require covering of all trucks hauling dirt, sand, soil, or other loose materials.

AQ-22 Install wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site for each trip.

AQ-23 Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).

AQ-24 Replace ground cover in disturbed areas as quickly as possible to minimize dust.

AQ-25 Pave road and road shoulders, where applicable.

AQ-26 Sweep streets at the end of the day with sweepers compliant with South Coast AQMD Rules 1186 and 1186.1 if visible soil is carried onto adjacent public paved roads (recommend water sweepers that utilize reclaimed water).

Construction Air Quality Mitigation Measures in the Final Program EIR for the 2016 AQMP

AQ-1 During construction, require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). If the Lead Agency determines that 2010 model year or newer diesel trucks cannot be obtained, the Lead Agency shall instead requires the use of trucks that meet EPA 2007 model year NOx emissions requirements.

AQ-2 Require all on-site construction equipment to meet the following:

- All off road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
- A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
- Encourage construction contractors to apply for SCAQMD "SOON" funding incentives. The "SOON" program provides funds to accelerate the clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm.

AQ-3 Prohibit vehicles and construction equipment from idling longer than five minutes at the construction site by including these restrictions in the construction company contract(s) and by posting signs on-site, unless the exceptions in the CARB regulations which pertain to idling requirements are applicable.

AQ-4 All on-road heavy-duty diesel trucks or equipment with a gross vehicle weight rating (GVWR) of 19,500 pounds or greater shall comply with EPA 2007 on-road emission standards for PM and NOx (0.01 gram per brake horsepower - hour (g/bhp-hr) and at least 0.2 g/bhp-hr, respectively).

AQ-5 Maintain construction equipment tuned up and with two to four-degree retard diesel engine timing or tuned to manufacturer's recommended specifications that optimize emissions without nullifying engine warranties.

AQ-6 The project proponent shall survey and document the proposed project's construction areas and identify all construction areas that are served by electricity. Onsite electricity, rather than temporary power generators, shall be used in all construction areas that are demonstrated to be served by electricity.

AQ-7 Provide temporary traffic controls such as a flag person, during all phases of significant construction activity to maintain smooth traffic flow.

AQ-8 Provide dedicated turn lanes for the movement of construction trucks and equipment on- and off-site.

AQ-9 Re-route construction trucks away from congested streets or sensitive receptor areas.

AQ-10 Improve traffic flow by signal synchronization.

AQ-11 Reduce traffic speeds on all unpaved roads to 15 mph or less.

AQ-12 Prohibit truck idling in excess of five minutes, on- and off-site.

AQ-13 Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable.

AQ-14 Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.

AQ-15 Suspend all construction activities that generate air pollutant emissions during first stage smog alerts.

AQ-16 Configure construction parking to minimize traffic interference.

AQ-17 Use alternative clean fueled off-road equipment or give extra points in the bidding process for contractors committing to use such equipment.

AQ-18 Require covering of all trucks hauling dirt, sand, soil, or other loose materials.

AQ-19 Install wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site for each trip.

AQ-20 Apply non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more).

AQ-21 Replace ground cover in disturbed areas as quickly as possible to minimize dust.

AQ-22 Pave road and road shoulders.

AQ-23 Sweep streets at the end of the day with SCAQMD Rule 1186 and 1186.1 compliant sweepers if visible soil is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water).

Cumulative Impacts

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP control measures would result in significant adverse air quality impacts during construction and, when combined with past, present, and reasonably foreseeable activities, in particular with transportation projects

projected in the SCAG Connect SoCal Plan[8] and the CARB Proposed 2022 State SIP Strategy,[9] would contribute to cumulatively considerable impacts to air quality related to criteria pollutant emissions during construction, a significant, unavoidable cumulative impact.

Emission increases would be expected from implementation of the 2022 AQMP; however, the overall emission reductions associated with implementation of the 2022 AQMP, as well as the SIP measures developed by CARB and the Regional Transportation Strategy and Transportation Control Measures developed by SCAG, were expected to result in a substantial reduction in criteria pollutant emissions. Therefore, the overall emission reductions were expected to outweigh any emission increases and provide an overall benefit. Therefore, the cumulative air quality impacts were concluded to be less than significant.

Implementation of the control measures in the 2022 AQMP was expected to result in substantial GHG emission reductions from replacing diesel- and gasoline-fueled equipment with electric-powered and alternative-fueled equipment which would offset potential increases in GHG emissions from construction projects and additional electricity use and generation, resulting in a net benefit overall anticipated. The Proposed 2022 State Strategy also considered GHG emissions reductions to be beneficial. However, the GHG emissions reductions in the SCAG Connect SoCal Plan were considered significant because they did not reach the mandated target. The 2022 AQMP was not cumulatively considerable to the significant impact and in fact, was expected to improve the goal towards the mandated GHG reduction target. Therefore, the cumulative GHG impacts were considered beneficial and less than significant.

Mitigation measures for construction impacts resulting from the 2022 AQMP are listed in the previous section titled “Construction Air Quality Mitigation Measures in the Final Program EIR for the 2022 AQMP,” and mitigation measures were identified in the environmental assessments for the Connect SoCal Plan and the Proposed 2022 State Strategy; however, no mitigation measures to reduce the significant cumulative impacts to air quality related to construction activities were identified. Operational air quality impacts for criteria pollutants, toxic air contaminants, and GHG emissions were considered beneficial both for the project and cumulatively. Therefore, mitigation measures were not required.

Cumulative impacts to air quality for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for construction. Cumulative air quality impacts for past, present, and reasonably foreseeable future projects may show quantitively that the emissions benefit of implementing the 2022 AQMP is greater than the expected emissions increases. Therefore, the cumulative operational air quality and GHG impacts were expected to be less than significant.

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[8] Southern California Association of Governments, Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy), May 2020. https://scag.ca.gov/read-plan-adopted-final-connect-socal-2020

[9] California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), September 2022. https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse construction air quality impacts because emissions associated with construction activities would have the potential to exceed the South Coast AQMD's significance thresholds. Mitigation measures were identified, but air quality impacts from construction would remain significant. The analysis in the Final Program EIR concluded that the 2016 AQMP control measures would result in significant adverse air quality impacts during construction and when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS),[10] would contribute to cumulatively considerable impacts to air quality identified in the 2016 RTP/SCS. No additional mitigation measures to reduce the significant cumulative impacts to air quality were identified. Cumulative impacts to air quality from implementation of the 2016 AQMP would remain significant and unavoidable.

Energy

This section summarizes the potentially significant energy impacts from implementing the proposed the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The energy impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

Energy impacts are significant if any of the following conditions occur:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable energy resources in a wasteful and/or inefficient manner.

Potential Impacts

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified and evaluated the control measures that have the potential to generate energy impacts. Table VIII-6 summarizes the control methodologies and potential adverse impacts to energy for the 2022 AQMP and 2016 AQMP control

[10] Southern California Association of Governments, Connect SoCal (2016–2040 Regional Transportation Plan/Sustainable Communities Strategy), April 2016. https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf

measures upon which the PM2.5 Plan relies. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-6
AQMP CONTROL MEASURES WITH POTENTIAL ENERGY IMPACTS

Control Measure Number	Control Methodology	Potential Energy Impact
R-CMB-01 in 2022 AQMP	Installation of zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Potential energy impacts due to potential increased demand for electricity which may be produced from natural gas.
R-CMB-02 in 2022 AQMP	Installation of zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Potential energy impacts due to potential increased demand for electricity which may be produced from natural gas.
R-CMB-03 in 2022 AQMP	Installation of electric cooking devices, induction cooktops, or low-NOx burners in new and existing residences.	Potential energy impacts due to potential increased demand for electricity which may be produced from natural gas.
R-CMB-04 in 2022 AQMP	Installation of zero emission or low NOx technologies in new and existing residences to replace equipment such as pool heaters, dryers, grills, etc.	Potential energy impacts due to potential increased demand for electricity which may be produced from natural gas.
L-CMB-04 in 2022 AQMP	Installation of zero emission and low NOx technology alternatives to emergency ICEs.	Potential energy impacts due to increased demand for electricity and hydrogen which may be produced by natural gas; and natural gas to operate new equipment.
L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.	Potential energy impacts due to increased demand for electricity and hydrogen which may be produced by natural gas; and natural gas to operate new equipment.
ECC-01 in 2022 AQMP	Evaluating renewable energy targets with existing and further GHG emission reduction mechanisms, including market, incentive and rebate programs, and promoting the implementation and development of new technologies, which may involve the use of electricity in order to reduce emissions of criteria air pollutants and GHGs.	Potential energy impacts due to potential increased demand for electricity.
BCM-04 in 2016 AQMP	Acidifier application, manure removal, manure slurry injection, and dietary manipulation and feed additives to reduce ammonia in manure.	Potential increased demand for fuel used and fuel generated by thermal gasification.
BCM-05 in 2016 AQMP	Installation and use of advanced catalyst technology for the conversion of ammonia.	Potential increased demand for electricity to operate the control equipment.

TABLE VIII-6 (continued)

AQMP CONTROL MEASURES WITH POTENTIAL ENERGY IMPACTS

Control Measure Number	Control Methodology	Potential Energy Impact
BCM-10 in 2016 AQMP	Controls such as anaerobic digestion and organic processing technology, and restrictions for direct applications of un-composted waste to public lands.	Potential increased demand for natural gas needed for anaerobic digestion.
BCM-01 in 2016 AQMP	Installation of control equipment such as ESPs, filters, centrifugal separators, and misters.	Potential increased demand for electricity to operate the new control equipment.
BCM-06 in 2016 AQMP	Exhaust ventilation to a fabric filter for permanent in-building abrasive blasting activities, and use of additional portable control equipment, such as negative air machines, portable fume extractors and portable dust collectors with HEPA filters.	Potential increased demand for electricity to operate the control equipment.
BCM-07 in 2016 AQMP	Dry and wet dust control options to control PM including silica particles.	Potential increased demand for electricity due to the use of engineering controls.
BCM-09 in 2016 AQMP	Construction/upgrading of wood burning hearths to cleaner hearth as well as an increase in the stringency of the curtailment program and education.	Potential increased demand for natural gas or electricity needed due to converting wood burning hearths to natural gas or electric hearths.
MCS-01 in 2022 AQMP	Retrofitting existing equipment and installation of newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations.	Potential energy impacts due to increased demand for electricity to operate new equipment.
EGM-01 in 2022 AQMP	Replacing or upgrading off-road construction equipment as part of development/redevelopment efforts may result in the use of zero emission technologies in construction, the installation of charging and alternative fueling infrastructure, the use of alternative fuels; and the use construction equipment with low-emitting engines fitted with diesel PM filters.	Potential energy impacts due to increased demand for electricity to operate vehicles, rail, or new equipment.
EGM-03 in 2022 AQMP	Incentivizing the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, diesel PM filtration, low-emitting engines, and low VOC materials.	Potential energy impacts due to increased demand for electricity which may be produced from natural gas.
MOB-01 in 2022 AQMP	Infrastructure development required to achieve emission reductions at commercial marine ports from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft.	Potential energy impacts due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas.

TABLE VIII-6 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL ENERGY IMPACTS

Control Measure Number	Control Methodology	Potential Energy Impact
MOB-2A in 2022 AQMP	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	Potential energy impacts due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas.
MOB-2B in 2022 AQMP	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available	Potential energy impacts due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas.
MOB-04 in 2022 AQMP	Deploying additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, diesel PM filters, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports.	Potential energy impacts due to increased demand for electricity and hydrogen.
MOB-05 in 2022 AQMP	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.	Potential energy impacts due to increased demand for electricity (produced by natural gas) and hydrogen.
MOB-06 in 2022 AQMP	Retiring older, heavy-duty vehicles and replacing them with low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).	Potential energy impacts due to increased demand for electricity (produced by natural gas) and hydrogen.
MOB-07 in 2022 AQMP	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.	Potential energy impacts due to increased demand for electricity, natural gas, and hydrogen.
MOB-08 in 2022 AQMP	Promoting the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs will contribute to the retirement of older off-road engines.	Potential energy impacts due to increased demand for electricity.
MOB-09 in 2022 AQMP	Promoting earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).	Potential energy impacts due to increased demand for electricity produced from natural gas, and hydrogen.

TABLE VIII-6 (concluded)
AQMP CONTROL MEASURES WITH POTENTIAL ENERGY IMPACTS

Control Measure Number	Control Methodology	Potential Energy Impact
MOB-10 in 2022 AQMP	Accelerating the deployment of zero (e.g., battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding.	Potential energy impacts due to increased demand for electricity produced from natural gas, and hydrogen.

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2022 AQMP control measures listed in Table VIII-6 have potential energy impacts due to increased demand for electricity, natural gas, and hydrogen.

The Final Program EIR for the 2022 AQMP discussed increases in electricity demand according to types of sources. Control measures affecting residential and commercial sources (R-CMB-01 through R-CMB-04, and also C-CMB-01 through C-CMB-05 which the PM2.5 Plan is not relying on) were estimated to increase annual electricity use by 12,960 Gigawatt hours (GWh) per year. Estimates could not be made for control measures affecting large stationary sources (L-CMB-01 through L-CMB-08), but the installation of air pollution control technology, replacement of existing equipment with higher tier equipment, and replacement of equipment with zero emission technology would result in potentially significant increases in the amount of electricity needed. Similarly, estimates could not be made for control measures affecting other sources (such as ECC-01 and MCS-01), but electricity demand was expected to increase. Lastly, control measures affecting mobile sources (EGM-01 through EGM-03, and MOB-01 through MOB-10) were estimated to increase annual electricity use by 319.1 GWh per year. Therefore, the Final Program EIR for the 2022 AQMP concluded that energy impacts due to increased electricity demand were potentially significant and mitigation measures E-1 to E-7 were crafted and adopted with the intent of minimizing the significant electricity demand impacts. However, the overall energy impacts due to increased electricity demand was concluded to remain significant after mitigation is applied.

Control measures in the 2022 AQMP were determined to have the potential to result in: 1) an increase in demand for natural gas primarily associated with the production of electricity in the short term, the production of hydrogen in the short-term, and fueling vehicles; and 2) a decreased demand for natural gas appliances in commercial and residential setting. The combined increase in natural gas demand needed for producing electricity and hydrogen and for fueling vehicles may be somewhat offset over the long-term by a decrease in demand for natural gas appliances in commercial and residential setting. However, over the short-term, the natural gas demand is expected to increase. Therefore, the Final Program EIR for the 2022 AQMP concluded that energy impacts due to increased natural gas demand were potentially significant and mitigation measures E-8 and E-9 were crafted and adopted with the intent of minimizing the significant natural gas demand impacts. However, the overall energy impacts due to increased natural gas demand was concluded to remain significant after mitigation is applied.

One of the goals of the 2022 AQMP was to shift from conventional petroleum fuels to low NOx or zero emission technologies, including hydrogen. The 2022 AQMP does not mandate hydrogen fuel use by fleet operators, and hydrogen fuels need further technology demonstration and deployment for vehicles larger than passenger cars (i.e., medium- and heavy-duty vehicles). The hybrid and electric vehicle technologies and deployment are much further developed than the hydrogen fuel cell vehicles for industrial and commercial uses (i.e., heavy-duty truck uses). Therefore, early advancement of light-duty fuel cell electric vehicles (FCEVs) along with the further development of heavy-duty FCEVs is expected to increase hydrogen demand for mobile sources. Little excess hydrogen capacity is available to meet the increase in hydrogen demand and additional hydrogen production facilities will be necessary. Thus, the increased demand impacts for hydrogen fuel are expected to be significant. Therefore, the Final Program EIR for the 2022 AQMP concluded that energy impacts due to increased hydrogen demand were potentially significant and mitigation measures E-10 to E-12 were crafted and adopted with the intent of minimizing the significant hydrogen demand impacts. However, the overall energy impacts due to increased hydrogen demand was concluded to remain significant after mitigation is applied.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for the 2016 AQMP determined that the 2016 AQMP control measures listed in Table VIII-6 have potential energy impacts due to increased demand for electricity, natural gas, and fuel use and fuel generated by thermal gasification.

The analysis in the Final Program EIR for the 2016 AQMP indicated that implementation of control measures BCM-01, BCM-05, BCM-06, BCM-07, and BCM-10 could result in the installation of air pollution control equipment which generally require electricity to operate. The analysis also identified a potential increase in electricity demand and use associated with the electrification of stationary sources through control measure BCM-09. Because the estimated 2024 electricity usage increase would exceed baseline electricity consumption by 7.8 to 12.7 percent, the projected increases to electricity demand were concluded to be potentially significant. Mitigation measures E-1 to E-7 were crafted and adopted with the intent of minimizing the significant electricity demand impacts. However, the overall energy impacts due to increased electricity demand was concluded to remain significant after mitigation is applied.

The analysis in the Final Program EIR for the 2016 AQMP also indicated that implementation of control measures BCM-01, BCM-05, BCM-06, BCM-07, and BCM-10 could result in an increased demand for natural gas associated with stationary sources due to the need for additional emission controls. In addition, the projected increased demand for electricity will also require additional natural gas since most of the power plants in California generate electricity from equipment that uses natural gas. Nonetheless, an overall decline in the demand for natural gas in the power generation sector in California was expected to occur over the next decade as more renewable generation and efficiency measures would reduce the need for natural gas-fired electricity generation. In addition, natural gas supplies were considered abundant as a result of technological innovations; the natural gas outlook in 2007 predicted that 700 trillion cubic feet of natural gas would be economically recoverable, but that outlook at the time of writing the Final Program EIR for the 2016 AQMP, increased to nearly 1,400 trillion cubic feet of natural gas, a 100 percent increase.

Therefore, the Final Program EIR for the 2016 AQMP concluded that energy impacts due to increased natural gas demand were less than significant.

Finally, the analysis in the Final Program EIR for the 2016 AQMP indicated that implementation of control measure BCM-04 could result in the thermal gasification of manure which would potentially generate a biogas (e.g., methane gas similar to natural gas) for use in other processes such as electricity production. Added into the discussion of renewable energy impacts from other control measures from the 2016 AQMP, the Final Program EIR for the 2016 AQMP concluded that energy impacts due to renewable energy were less than significant.

Mitigation Measures

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP developed targeted mitigation measures based on project-specific impacts related to energy which were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP and in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP, respectively, and are applicable to the proposed PM2.5 Plan control measures. The following mitigation measures adopted for the 2022 AQMP and the 2016 AQMP, respectively are applicable to the implementation of PM2.5 Plan control measures:

Energy Mitigation Measures in the Final Program EIR for the 2022 AQMP

E-1 Project sponsors should pursue incentives to encourage the use of energy efficient equipment and vehicles and promote energy conservation during electricity generation.

E-2 Utilities should increase capacity of existing transmission lines to meet forecast demand that supports sustainable growth where feasible and appropriate in coordination with local planning agencies.

E-3 Project sponsors should submit projected electricity calculations to the local electricity provider for any project anticipated to require substantial electricity consumption. Any infrastructure improvements necessary should be completed according to the specifications of the electricity provider.

E-4 Project sponsors should include energy analyses in environmental documentation with the goal of conserving energy through the wise and efficient use of energy.

E-5 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging charging of electrical vehicles and other mobile sources during off-peak hours.

E-6 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of catenary or way-side electrical systems developed for transportation systems to operate during off-peak hours.

E-7 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of electrified stationary sources during off-peak hours.

E-8 Projects that require a substantial increase in natural gas demand should consider the use of renewable gas, where available and feasible, including biofuel landfill gas and gas produced from renewable fuels projects.

E-9 Project sponsors should submit projected natural gas demand use to the local natural gas provider for any project anticipated to require substantial natural gas consumption. Any infrastructure improvements necessary should be completed according to the specifications of the natural gas provider.

E-10 Project sponsors should pursue incentives to encourage the use of energy efficient equipment and vehicles, and promote energy conservation associated with hydrogen production.

E-11 Project sponsors should site new facilities in areas where infrastructure exists to reduce the amount of energy necessary to build new hydrogen production facilities.

E-12 Project sponsors should pursue hydrogen production and delivery through the most energy efficient, least environmentally impactful methods, where feasible.

Energy Mitigation Measures in the Final Program EIR for the 2016 AQMP

E-1 Project sponsors should pursue incentives to encourage the use of energy efficient equipment and vehicles and promote energy conservation.

E-2 Utilities should increase the capacity of existing transmission lines to meet forecast demand that supports sustainable growth, where feasible and appropriate, in coordination with local planning agencies.

E-3 Project sponsors should submit projected electricity calculations to the local electricity provider for any project anticipated to require substantial electricity consumption. Any infrastructure improvements necessary should be completed according to the specifications of the electricity provider.

E-4 Project sponsors should include energy analyses in environmental documentation (e.g., CEQA document) with the goal of conserving energy through the wise and efficient use of energy.

E-5 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the charging of electrical vehicles and other mobile sources during off-peak hours.

E-6 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of catenary or way-side electrical systems developed for transportation systems to operate during off-peak hours.

E-7 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of electrified stationary sources during off-peak hours (e.g., cargo handling equipment).

Cumulative Impacts

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in significant adverse electricity consumption impacts because the potential electricity usage increase would exceed baseline electricity consumption by an estimated 11 percent. Significant impacts were also concluded for natural gas and hydrogen demand. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in a significant increase in electricity, natural gas, and hydrogen demand which may not currently be available, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to energy were identified. Cumulative impacts to energy demand for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for electricity, natural gas, and hydrogen demand.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse electricity consumption impacts because the potential electricity usage increase would exceed baseline electricity consumption by 7.8 to 12.7 percent. No significant impacts on natural gas supplies and petroleum fuels associated with the 2016 AQMP were identified because of the anticipated reduction in future demand and wide availability of natural gas. The 2016 AQMP control measures would result in significant adverse energy demand impacts and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to energy identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to energy were identified. Cumulative impacts to energy from implementation of the 2016 AQMP would remain significant and unavoidable.

Hazards and Hazardous Materials

This section summarizes the potentially significant hazards and hazardous materials impacts from implementing the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The hazards and hazardous materials impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

Hazards and hazardous materials impacts are significant if any of the following conditions occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment, or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Potential Impacts

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified and evaluated the control measures that have the potential to generate hazards and hazardous materials impacts. Table VIII-7 lists the 2022 AQMP and 2016 AQMP control measures with potential adverse impacts to hazards and hazardous materials, control methodology, and potential impacts. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-7
AQMP CONTROL MEASURES WITH POTENTIAL HAZARDS AND HAZARDOUS MATERIALS IMPACTS

Control Measure Number	Control Methodology	Potential Hazards and Hazardous Materials Impact
L-CMB-04 in 2022 AQMP	Installation of zero emission and low NOx technology alternatives to emergency ICEs.	Potential hazard impacts associated with the increased production and use of hydrogen.
L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.	Potential hazard impacts associated with ammonia use in SCRs, if installed, and the increased production and use of hydrogen.
BCM-04 in 2016 AQMP	Acidifier application, manure removal, manure slurry injection, and feed additives to reduce ammonia in manure.	Potential hazards generated by acidifier application, manure removal, and manure slurry injection.
BCM-05 in 2016 AQMP	Installation and use of advanced catalyst technology for the conversion of ammonia.	Use of new catalysts could generate potential hazards.
MCS-02 in 2022 AQMP	Mechanical thinning and chipping activities during fuel reduction and removal efforts.	Potential fire hazards associated with chipping and grinding activities.

TABLE VIII-7 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL HAZARDS AND HAZARDOUS MATERIALS IMPACTS

Control Measure Number	Control Methodology	Potential Hazards and Hazardous Materials Impact
MCS-01 in 2022 AQMP	Retrofitting existing equipment and installation of newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations.	Potential hazard impacts associated with ammonia use in SCRs, if installed.
EGM-01 in 2022 AQMP	Replacing or upgrading off-road construction equipment as part of development/redevelopment efforts may result in the use of zero-emission technologies in construction, the installation of electrical and alternative fuel infrastructure, the use of alternative fuels; and the use construction equipment with low-emitting engines fitted with DPFs.	Potential hazard impacts associated with the increased alternative fuels production and use (e.g., hydrogen).
EGM-03 in 2022 AQMP	Incentivizing the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, DPFs, low-emitting engines, and low VOC materials.	Potential hazard impacts associated with the increased alternative fuels production and use (e.g., hydrogen).
MOB-01 in 2022 AQMP	Infrastructure development required to achieve emission reductions at commercial marine ports from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft.	Potential hazard impacts associated with engine replacements.
MOB-2A in 2022 AQMP	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	Potential hazard impacts associated with engine replacements and with the increased production and use of alternative fuels (e.g., hydrogen).
MOB-2B in 2022 AQMP	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest on-road heavy-duty vehicles, off-road equipment including cargo handling equipment and transportation refrigeration units, and both line-haul and switcher locomotives.	Potential hazard impacts associated with engine replacements and with the increased production and use of alternative fuels (e.g., hydrogen).

TABLE VIII-7 (concluded)
AQMP CONTROL MEASURES WITH POTENTIAL HAZARDS AND HAZARDOUS MATERIALS IMPACTS

Control Measure Number	Control Methodology	Potential Hazards and Hazardous Materials Impact
MOB-04 in 2022 AQMP	Deploying additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, diesel PM filters, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports.	Potential hazard impacts associated with engine replacements and with the increased production and use of alternative fuels (e.g., hydrogen).
MOB-05 in 2022 AQMP	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.	Potential hazard impacts associated with the production and use of alternative fuels and fuel additives, and scrapping retired vehicles.
MOB-06 in 2022 AQMP	Retiring older, heavy-duty vehicles and replacing them with low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).	Potential hazard impacts associated with scrapping retired vehicles and disposal of batteries and fluids, and increased production and use of alternative fuels.
MOB-07 in 2022 AQMP	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.	Potential hazard impacts associated with scrapping retired vehicles and disposal of batteries and fluids, and increased production and use of alternative fuels (e.g., hydrogen).
MOB-08 in 2022 AQMP	Promoting the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs will contribute to the retirement of older off-road engines.	Potential hazard impacts associated with scrapping retired vehicles and disposal of batteries and fluids.
MOB-09 in 2022 AQMP	Promoting earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).	Potential hazard impacts associated with scrapping retired locomotives and increased production and use of alternative fuels.
MOB-10 in 2022 AQMP	Accelerating the deployment of zero (e.g., battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding.	Potential hazard impacts associated with the increased production and use of alternative fuels and fuel additives (e.g., natural gas and hydrogen).

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2022 AQMP control measures listed in Table VIII-7 have potential hazards and hazardous materials impacts due to use of ammonia in SCRs, increased use of alternative fuels including increased use of electric and hybrid vehicles, increased use and production of hydrogen, and fire hazards associated with chipping and grinding activities.

Operation of SCR technology requires transport and use of ammonia and SCR catalyst. Three accidental release scenarios for ammonia were evaluated for: 1) routine transport; 2) use at non-RECLAIM facilities; and 3) use at RECLAIM facilities. Each scenario was concluded to generate significant adverse hazards impacts. However, the routine transport, use, or disposal of fresh and spent catalyst was determined to generate less than significant hazards impacts. Therefore, the Final Program EIR for the 2022 AQMP concluded that hazards and hazardous materials impacts due to increased ammonia use were potentially significant and mitigation measures HZ-1 to HZ-6 were crafted and adopted with the intent of minimizing the significant hazards and hazardous materials impacts. However, the overall hazards and hazardous materials impacts due to increased ammonia use was concluded to remain significant after mitigation is applied.

Use of alternative fuels requires additional knowledge and training of owners/operators of fueling stations regarding maintaining and operating alternative fuel refueling stations and emergency responders. Further, as use of alternative fuels increases within the South Coast AQMD's jurisdiction, use of conventional fuels such as gasoline and diesel will decline. As a result, explosion and flammability hazards associated with conventional fuels will also decline. In addition, hazards and hazardous clean-up associated with accidental releases of conventional fuels, especially diesel, will be reduced as the use of alternative fuels increases. For the storage and dispensing of alternative fuels, compliance with existing regulations and recommended safety procedures will ensure that any potential hazards impacts associated with alternative clean-fuels are expected to be the same or less than those of conventional fuels. Accordingly, the Final Program EIR concluded that the hazards impacts from the increased use of alternative fuels would be similar to or less than hazards associated with conventional fuels. Therefore, the analysis concluded that no significant hazard impacts would be expected from the increased storage and use of alternative fuels and so no mitigation measures were required.

The majority of the 2022 AQMP control measures focused on maximizing the implementation of zero emission and low NOx technologies which are expected to include electrification of mobile sources (light-duty vehicles, medium-duty vehicles, and heavy-duty vehicles). Since gasoline is a conventional fuel, any difference in hazards associated with hybrid and electric vehicles would be from the batteries. The likelihood to overheat or ignite is increased if the batteries are poorly packaged, damaged, or exposed to a fire or a heat source; however, internal combustion engines also can result in fires and other hazards so switching to battery power would not likely result in an increased fire risk. Thus, the Final Program EIR concluded that the hazard impacts associated with using batteries in electric vehicles were expected to be less than the hazards associated with gasoline-powered vehicles. Thus, no remaining hazard impacts associated with using batteries for these types of vehicles were expected.

When comparing the use of diesel fuel and gasoline to hydrogen, the Final Program EIR for the 2022 AQMP presented various characteristics such as that diesel fuel and gasoline are toxic to the skin and lungs while hydrogen is non-toxic and non-reactive, so if released, it does not present a health hazard to humans; and hydrogen has a lower radiant heat when compared to gasoline, meaning the air around the hydrogen flame is not as hot as around a gasoline flame. Therefore, the risk of hydrogen secondary fires is lower. Hazards associated with hydrogen are approximately equivalent or less when compared to conventional fuels. In addition, fire hazards associated with hydrogen when compared to fires involving conventional fuels are equivalent but will require different firefighting protocols due to the nature of hydrogen. Therefore, the Final Program EIR concluded that no significant increase in hazards would be expected from using hydrogen in mobile sources when compared to conventional fuels.

In evaluating the hazards impacts from production of hydrogen, the Final Program EIR for the 2022 AQMP referenced a recent hazard analysis completed for a proposed new hydrogen plant at a renewable fuels facility in Southern California. The results of the analysis indicated that the worst-case hazard zones associated with an upset of the hydrogen plant and related pipelines were related to a torch fire and would create hazards to surrounding areas within approximately 90 feet of the fire. The hazards associated with the rupture of the related natural gas pipeline that would feed the hydrogen plant was also identified as a potential torch fire risk which could create hazards to surrounding areas within approximately 183 feet of a release. Therefore, the Final Program EIR concluded that the hazards associated with the potential increase in transmission of natural gas via pipeline to service hydrogen plants would be considered potentially significant.

Control measure MCS-02 of the 2022 AQMP would result in thinning and chipping to reduce excess fuel at properties located in the residential urban wild-interface areas of the San Bernardino National Forest. These thinning activities would reduce flammable materials from the urban wild-interface by removing dead, dying, and decaying material. Further the practice of thinning and use of chips as ground cover can facilitate defensible space modification by removing excess surface and ladder fuels and enhance the resiliency of underlying soil through increased water retention, complementing home hardening efforts. Therefore, the Final Program EIR concluded that control measure MCS-02 would be expected to provide a beneficial impact by reducing the potential spread and impacts from wildfires.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for the 2016 AQMP determined that the 2016 AQMP control measures listed in Table VIII-7 have potential hazards and hazardous materials impacts due to acidifier application, manure removal, and manure slurry injection; and the use of new catalysts in SCR.

Implementation of control measure BCM-04 of the 2016 AQMP would control ammonia emissions from livestock operations through the application of the acidifier sodium bisulfate. Because sodium bisulfate is a salt, the transportation and flammability risks are very low. In a worst case-scenario if a spill was to occur, the hazards impacts would be negligible. Therefore, the Final Program EIR for the 2016 AQMP concluded that the routine use of acidifiers would create a less than significant hazard impact.

Implementation of control measure BCM-05 of the 2016 AQMP could result in the increased use of catalysts as well as an increase in the quantity of catalyst disposed of as hazardous materials. With a projected increase in the frequency of truck transportation trips to remove the spent catalyst as hazardous materials or hazardous waste from each affected facility, facility operators may choose to either dispose of the spent catalyst in a landfill or recycle it, which may be the more popular (and potentially lucrative) consideration since catalyst contains recoverable and valuable precious metals. The composition and type of the catalyst will determine the type of landfill that would be eligible to handle the disposal. It is likely that spent catalysts would be considered a "designated waste," which is characterized as a non-hazardous waste consisting of, or containing pollutants that, under ambient environmental conditions, could be released at concentrations in excess of applicable water objectives, or which could cause degradation of the waters of the state. Depending on its actual waste designation, spent catalysts would likely be disposed of in a Class II landfill or a Class III landfill that is fitted with liners. Therefore, the Final Program EIR for the 2016 AQMP concluded that the routine use of catalysts would create a less than significant hazard impact.

Mitigation Measures

The Final Program EIR for the 2022 AQMP developed targeted mitigation measures based on project-specific impacts related to hazards and hazardous materials which were adopted in the in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP and in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP, respectively, and are applicable to the proposed PM2.5 Plan control measures. However, no hazards and hazardous materials mitigation measures were proposed for the 2016 AQMP control measures upon which the PM2.5 Plan relies.

Thus, only the following mitigation measures adopted for the 2022 AQMP are applicable to the implementation of PM2.5 Plan control measures.

Hazards and Hazardous Materials Mitigation Measures in the Final Program EIR for the 2022 AQMP

HZ-1 Use of aqueous ammonia at concentrations less than 19 percent by weight.

HZ-2 Install safety devices, including but not limited to: continuous tank level monitors (e.g., high and low level), temperature and pressure monitors, leak monitoring and detection system, alarms, check valves, and emergency block valves.

HZ-3 Install secondary containment such as dikes and/or berms to capture 110 percent of the storage tank volume in the event of a spill.

HZ-4 Install a grating-covered trench around the perimeter of the delivery bay to passively contain potential spills from the tanker truck during the transfer of aqueous ammonia from the delivery truck to the storage tank.

HZ-5 Equip the truck loading/unloading area with an underground gravity drain that flows to a large on-site retention basin to provide sufficient ammonia dilution to minimize the offsite hazards impacts to the maximum extent feasible in the event of an accidental release during transfer of aqueous ammonia.

HZ-6 Install tertiary containment that is capable of evacuating 110 percent of the storage tank volume from the secondary containment area.

Cumulative Impacts

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in the following significant adverse hazards and hazardous materials impacts:

1) Increased usage of ammonia due to implementation of control measures in the 2022 AQMP could generate significant adverse hazard impacts during routine transport as a result of an accidental release of delivered aqueous ammonia.

2) The hazards impact from a catastrophic rupture of an ammonia tank is considered a potentially significant adverse hazards impact since off-site receptors could be exposed to concentrations that would exceed the ERPG-2 toxic endpoint concentration for ammonia.

3) Hazards impacts from the construction of new natural gas pipeline to service new hydrogen plants would be considered potentially significant.

Mitigation Measures HZ-1 through HZ-6 pertaining to the storage of aqueous ammonia were identified as having the potential to reduce impacts; however, these mitigation measures were not expected to reduce impacts to less than significant levels. Therefore, the remaining hazardous and hazardous materials impacts from exposure to aqueous ammonia due to tank rupture were considered to be significant after mitigation. No mitigation measures were identified for construction of a new natural gas pipeline. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in a significant increase in the use of hazards and hazardous materials, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to hazards and hazardous materials were identified. Therefore, the Final Program EIR concluded that cumulative impacts to hazards and hazardous materials for past, present, and reasonably foreseeable future projects would remain significant and unavoidable.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse hazards and hazardous materials impacts; however, for the specific subset of 2016 AQMP control measures upon which the PM2.5 Plan relies, the Final Program EIR

concluded less than significant adverse hazards and hazardous materials impacts. Other 2016 AQMP control measures would result in significant adverse hazards and hazardous materials impacts and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to hazards and hazardous materials identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to hazards and hazardous materials were identified. Cumulative impacts to hazards and hazardous materials from implementation of the 2016 AQMP would remain significant and unavoidable.

Hydrology and Water Quality

This section summarizes the potentially significant hydrology and water quality impacts from implementing the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The hydrology and water quality impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

Hydrology and water quality impacts are significant if any of the following conditions occur:

Water Demand

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Potential Impacts

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified and evaluated the control measures that have the potential to hydrology and water quality impacts. Table VIII-8 lists the 2022 AQMP and 2016 AQMP control measures with potential adverse impacts to hydrology and water quality, control methodology, and potential impacts. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-8

AQMP CONTROL MEASURES WITH POTENTIAL HYDROLOGY AND WATER QUALITY IMPACTS

Control Measure Number	Control Methodology	Potential Hydrology and Water Quality Impact
L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.	Potential hydrology and water quality impacts if new steam turbines are installed.
BCM-04 in 2016 AQMP	Acidifier application, manure removal, manure slurry injection, manure thermal gasification, and dietary manipulation/feed additives.	Potential increase in water use associated with the acidifier application process and slurry injections.
BCM-10 in 2016 AQMP	Controls such as anaerobic digestion and organic processing technology, and restrictions for direct applications of un-composted waste to public lands.	Potential increase in water use associated with waste treatment processes.
BCM-01 in 2016 AQMP	Installation of control equipment such as ESPs, filters, centrifugal separators, and misters.	Potential increases in water use to operate wet ESPs and misters.
BCM-03 in 2016 AQMP	Reduction of track out from stationary sources by specifying street sweeping methods and frequency.	Potential increase in water use associated with wheel washing systems for dust suppression.
BCM-07 in 2016 AQMP	Dry and wet dust control options to control PM including silica particles.	Potential increase in water use from applying wet methods to prevent dust.
MCS-02 in 2022 AQMP	Mechanical thinning and chipping and grinding activities during fuel reduction and removal efforts.	Potential hydrology impacts (increased water use) associated with composting activities.
MOB-05 in 2022 AQMP	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.	Potential hydrology and water quality impacts (surface and ground water) from disposal of batteries and fluids, and accidental spills.
MOB-06 in 2022 AQMP	Retiring older, heavy-duty vehicles and replacing them with low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).	Potential hydrology and water quality impacts (surface and ground water) from disposal of batteries and fluids, and accidental spills.

TABLE VIII-8 (concluded)
AQMP CONTROL MEASURES WITH POTENTIAL HYDROLOGY AND WATER QUALITY IMPACTS

Control Measure Number	Control Methodology	Potential Hydrology and Water Quality Impact
MOB-07 in 2022 AQMP	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.	Potential hydrology and water quality impacts (surface and ground water) from disposal of batteries and fluids, and accidental spills.
MOB-08 in 2022 AQMP	Promoting the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs will contribute to the retirement of older off-road engines.	Potential hydrology and water quality impacts (surface and ground water) from disposal of batteries and fluids, and accidental spills.

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2022 AQMP control measures listed in Table VIII-8 have potential hydrology and water quality impacts due to construction and operation of new steam turbines, composting activities, and disposal of batteries and fluids, and accidental spills.

Summary of Water Demand and Supply Impacts

Implementing the 2022 AQMP was expected to result in construction activities related to the installation of air pollution control equipment (e.g., low NOx burners, SCR systems, and gas scrubbers) and replacement of existing equipment with low NOx and zero emission equipment such as fuel cells and electrified equipment. Modifications to existing industrial and commercial facilities were expected to require minimal site preparation/excavation and grading activities as the facilities were already developed, graded and paved for safety reasons. Therefore, while water could be applied to soil as a dust suppressant during site preparation/excavation and grading, since none to minimal grading was expected, minimal water, if any, would be needed for dust suppression activities during construction. Further, there are other types of dust suppressants, such as soil stabilizers, that may be used in lieu of water as set forth in South Coast AQMD Rule 403 – Fugitive Dust. For the previously discussed reasons, the Final Program EIR for the 2022 AQMP concluded that impact to water demand relating to construction activities was less than significant.

Control measure L-CMB-06 of the 2022 AQMP sought further NOx emission reductions from electric generating units using near-zero and zero emission technologies through a regulatory approach under South Coast AQMD Rule 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities. Gas-fired boilers operating at electricity generating facilities can be repowered with lower NOx-emitting

turbines. Similarly, gas-fired turbines or diesel engines operating at electricity generating facilities can be transitioned to electrified units, units fueled by non-fossil energy sources (e.g., hydrogen-fueled turbines), fuel cells for power generation, or gas-fired units that meet CARB's Distributed Generation Certification Regulation standards. While none of these technologies would require the use of steam or additional water resources, fuel cells generate wastewater at a rate of 1.1 gallons of wastewater for every pound of hydrogen fuel used.

Control measure MCS-02 of the 2022 AQMP was designed to mitigate PM emissions and bolster fuel reduction efforts within the residential urban-wild-interface areas of the San Bernardino National Forest. This entails employing techniques like hand-thinning, mechanical thinning, and the utilization of chipping and grinding equipment to clear wood and green waste. The wood and green waste collected and processed through chipping and grinding can be repurposed as organic mulch, offering multifaceted benefits such as moisture retention, soil insulation, erosion control, and weed suppression. The most cost-effective strategy involves distributing the generated mulch at or near the collection site, minimizing the necessity for additional water. However, if the mulch is transported to offsite compost facilities, water may be required for proper decomposition and fire prevention. These composting facilities operate under the regulatory framework established by South Coast AQMD Rule 1133.1 – Chipping and Grinding Activities and Rule 1133.3 – Emission Reductions from Green waste Composting Operations. These rules mandate water irrigation to maintain adequate moisture levels in compost piles, ensuring compliance and fire prevention. Based on estimates, composting 20,000 tons of wood and green waste would necessitate approximately 4,870 gallons of water per day. It is important to note that this estimate is conservative, as some mulch is anticipated to be utilized on-site, reducing the quantity hauled to offsite facilities.

The Final Program EIR for 2022 AQMP concluded that for control measures where water demand could be estimated, the increase in daily water demand ranged from 338,137 to 438,137 gallons. This increased water demand does not exceed the South Coast AQMD's significance threshold of 5,000,000 gallons per day of total water (comprised of potable, recycled and groundwater) demand, but it exceeded the 262,820 gallons per day significance threshold for potable water. Due to the extreme drought conditions and uncertainty about future water supplies, even though each county has various projects for providing recycled water, most of the recycled water projects, except for those in Los Angeles and Orange Counties, are to provide recycled water for landscape purposes. Therefore, the Final Program EIR for the 2022 AQMP concluded that implementation of the control measures in the 2022 AQMP as a whole may have a significant impact on both water demand and water supplies. Mitigation measures HWQ-1 to HWQ-4 were crafted and adopted with the intent of minimizing significant water demand impacts. However, while generally the mitigation measures could help minimize some of the water demand and water supply impacts on an individual facility-basis, the availability of water supplies varies throughout the region. Thus, not all mitigation measures would be applied in all situations. For this reason, the mitigation measures were not expected to fully eliminate the significant water demand and water supply impacts. Therefore, the Final Program EIR concluded that the water demand and water supply impacts that may result from implementing the 2022 AQMP were expected to remain significant.

Summary of Water Quality Impacts

The Final Program EIR for the 2022 AQMP discussed the potential water quality impacts due to increased generation of wastewater from installation and operation of new fuel cells and steam turbines per control measure L-CMB-06, and increased production of and potential for accidental spills of alternative fuels, increased scrapping of vehicles, increased use of electric vehicles, and increased potential for accidental spills associated with handling and recycling electric vehicle batteries per control measures MOB-05, MOB-06, MOB-07, and MOB-08. In the absence of facility-specific information regarding the potential increased amounts of wastewater that could be generated in order to determine whether a revision to an Industrial Waste Discharge Permit and/or a NPDES permit would be needed and whether a relocation or construction of new or expanded wastewater or storm water treatment facility would be needed, out of an abundance of caution, the analysis in this Program EIR concluded that implementation of the 2022 AQMP had the potential for one or more facilities to increase the amount of wastewater to be discharged by 25 percent above the current discharge permit limit such that permit revision would be necessary. For the same reasons, the analysis in the Final Program EIR for the 2022 AQMP also concluded that implementation of the 2022 AQMP had the potential to require or result in the relocation or construction of new or expanded wastewater treatment or storm water drainage facilities. Thus, the 2022 AQMP would result in significant adverse wastewater impacts associated with the quantity of effluent to be treated and discharged and the potential lack of existing capacity in the existing wastewater and stormwater treatment systems to handle the potential increases. Mitigation measure HWQ-5 was crafted and adopted with the intent of minimizing the significant water quality impacts. However, the overall water quality impacts would remain significant after mitigation is applied.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2016 AQMP control measures listed in Table VIII-8 have potential hydrology and water quality impacts due to water use in emissions control, from acidifier application and slurry injections to dust suppression.

Implementation of control measure BCM-01 of the 2016 AQMP may result in the use of add-on air pollution control equipment such as wet ESPs which require water to operate and would generate wastewater. The potential increase in the volume of wastewater estimated as a result of implementing all of the control measures in the 2016 AQMP identified as having potential wastewater impacts was estimated to be 2.1 million gallons per day, which represents about a 0.1 percent increase in wastewater generated within the Basin. Further, the increase in wastewater was well within the capacity of the existing wastewater treatment plants of about 1,911 million gallons. Therefore, the wastewater impacts pertaining to the existing capacity of wastewater treatment plants were expected to be less than significant.

Implementation of control measure BCM-04 of the 2016 AQMP would control ammonia emissions from livestock operations through the application of sodium bisulfate. While sodium bisulfate is considered an irritant because of its low pH, it is safe for use in water treatment. In particular, sodium bisulfate has been used as a disinfectant to prevent damage of the membrane used in reverse osmosis during water

treatment. Sodium bisulfate is certified for treating drinking water (e.g., for chlorine removal, corrosion and scale control, and pH adjustment) and is used to lower the pH of water for effective chlorination, including water in swimming pools. The Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP control measures, including increased use of sodium bisulfate, would have less than significant impact on hydrology and water quality impacts.

Implementation of control measure BCM-01 of the 2016 AQMP may result in the use of add-on air pollution control equipment such as wet ESPs that could result in an increased water demand. Other control measures, such as control measures BCM-03 and BCM-07, encourage the use of wet methods to prevent dust release. The overall water demand from the 2016 AQMP was estimated to be between 8,834,094 and 8,868,594 gallons per day, exceeding the significance threshold of 262,820 gallons per day for potable water demand and five million gallons per day of total water demand. Therefore, the Final Program EIR for the 2016 AQMP concluded that water demand impacts were potentially significant and mitigation measures WQ-1 to WQ-4 were crafted and adopted with the intent of reducing the significant water demand impacts. However, the overall water impacts would remain significant after mitigation is applied.

Mitigation Measures

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP developed targeted mitigation measures based on project-specific impacts related to hydrology and water quality which were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP and in the in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP, respectively, and are applicable to the proposed PM2.5 Plan control measures. The following mitigation measures for the 2022 AQMP and the 2016 AQMP, respectively are applicable to the implementation of PM2.5 Plan control measures:.

Hydrology and Water Quality Mitigation Measures in the Final Program EIR for the 2022 AQMP

HWQ-1 Local water agencies should continue to evaluate future water demand and establish the necessary supply and infrastructure to meet that demand, as documented in their Urban Water Management Plans.

HWQ-2 Project sponsors should coordinate with the local water provider to ensure that existing or planned water supply and water conveyance facilities are capable of meeting water demand/pressure requirements. In accordance with California law, a Water Supply Assessment should be required for projects that meet the size requirements specified in the regulations. In coordination with the local water provider, each project sponsor will identify specific on- and off-site improvements needed to ensure that impacts related to water supply and conveyance demand/pressure requirements are addressed prior to issuance of a certificate of occupancy. Water supply and conveyance demand/pressure clearance from the local water provider will be required at the time that a water connection permit application is submitted.

HWQ-3 Project sponsors should implement water conservation measures and use recycled or reclaimed water for appropriate end uses.

HWQ-4 Project sponsors should consult with the local water provider to identify feasible and reasonable measures to reduce water consumption.

HWQ-5 For any project that would increase the generation of wastewater, the facility must review diversion options for reusing the treated wastewater on-site, in lieu of discharge, where applicable and feasible.

Hydrology and Water Quality Mitigation Measures in the Final Program EIR for the 2016 AQMP

WQ-1 Local water agencies should continue to evaluate future water demand and establish the necessary supply and infrastructure to meet that demand, as documented in their Urban Water Management Plans.

WQ-2 Project sponsors should coordinate with the local water provider to ensure that existing or planned water supply and water conveyance facilities are capable of meeting water demand/pressure requirements. In accordance with State Law, a Water Supply Assessment should be required for projects that meet the size requirements specified in the regulations. In coordination with the local water provider, each project sponsor will identify specific on- and off-site improvements needed to ensure that impacts related to water supply and conveyance demand/pressure requirements are addressed prior to issuance of a certificate of occupancy. Water supply and conveyance demand/pressure clearance from the local water provider will be required at the time that a water connection permit application is submitted.

WQ-3 Project sponsors should implement water conservation measures and prioritize the use recycled water over potable or groundwater whenever available and appropriate for end uses.

WQ-4 Project sponsors should consult with the local water provider to identify feasible and reasonable measures to reduce water consumptions.

Cumulative Impacts

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in significant adverse water demand, water supply, and water quality impacts. While industrial facilities that may be impacted by the 2022 AQMP have industrial waste discharge permits and NPDES that may require modification, these permits include requirements for treatment, monitoring, and sampling, prior to discharge, to prevent significant water quality impacts. However, if any facility's existing wastewater treatment capacity is not sufficient such that physical modifications would need to be made, then based on the significance criteria, potentially significant water quality impacts would be expected. Therefore, while actions required to implement the 2022 AQMP were expected to result in additional pollutant

loading over what is currently discharged because of permit limits, physical modifications to wastewater treatment and stormwater collection systems may be needed and therefore, would be expected to contribute to cumulative water quality impacts. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in significant adverse water demand, water supply, and water quality impacts, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to water demand, water supply, and water quality were identified. Cumulative impacts to water demand, water supply, and water quality demand for past, present, and reasonably foreseeable future projects would remain significant and unavoidable.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse water demand impacts because the overall water demand would exceed the significance threshold of 262,820 gallons per day for potable water demand and five million gallons per day of total water demand. The 2016 AQMP control measures would result in significant adverse water demand impacts and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to water demand identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to hydrology and water quality were identified. Cumulative impacts to hydrology and water quality from implementation of the 2016 AQMP would remain significant and unavoidable.

Noise

This section summarizes the potentially significant noise impacts from implementing the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The noise impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

Noise impacts are significant if any of the following conditions occur:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.

- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Potential Impacts

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified and evaluated the control measures that have the potential to generate noise impacts. Table VIII-9 lists the 2022 AQMP and 2016 AQMP control measures with potential adverse impacts to noise, control methodology, and potential impacts. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-9
AQMP CONTROL MEASURES WITH POTENTIAL NOISE IMPACTS

Control Measure Number	Control Methodology	Potential Noise Impact
R-CMB-01 in 2022 AQMP	Installation of zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Removing older water heaters and installing zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.
R-CMB-02 in 2022 AQMP	Installation of zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Removing older residential space heaters and installing zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.
R-CMB-03 in 2022 AQMP	Installation of electric cooking devices, induction cooktops, or low NOx burners in new and existing residences.	Removing older residential cooking devices and installing electric cooking devices, or induction cooktops, in new and existing residences.
R-CMB-04 in 2022 AQMP	Installation of zero emission or low NOx technologies in new and existing residences to replace equipment such as pool heaters, dryers, grills, etc.	Removing older pool heaters, dryers, grills etc. and installing zero emission or low NOx technologies in new and existing residences
L-CMB-04 in 2022 AQMP	Installation of zero emission and low NOx technology alternatives to emergency ICEs, and requiring the use of renewable diesel for emergency standby ICEs.	Removing older, emergency standby engines and installing zero emission and low NOx technology alternatives to emergency standby engines.
L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.	Removing or decommissioning older boilers and installing lower-emitting turbines, or zero emission and low NOx emissions technologies
L-CMB-09 in 2022 AQMP	Installation of low NOx and ultra-low NOx burners for incinerators and other associated equipment.	Installing low NOx and ultra-low NOx burners for incinerators and other associated equipment.

TABLE VIII-9 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL NOISE IMPACTS

Control Measure Number	Control Methodology	Potential Noise Impact
ECC-03 in 2022 AQMP	Incentivization of additional reductions in energy use associated with space heating, water heating, and other large residential energy sources through facilitating weatherization, replacing older appliances with highly efficient technologies and encouraging renewable energy adoption such as solar thermal and photovoltaics.	Removing older appliances and installing highly efficient technologies such as solar thermal heating and photovoltaic panels.
BCM-05 in 2016 AQMP	Installation and use of advanced catalyst technology for the conversion of ammonia	Potential temporary changes in noise volume due to construction activities needed for installation of equipment.
BCM-03 in 2016 AQMP	Reduction of track out from stationary sources by specifying street sweeping methods and frequency.	Increased street sweeping frequencies have the potential to increase noise frequency/volume.
BCM-06 in 2016 AQMP	Construction of exhaust ventilation to a fabric filter for permanent in building abrasive blasting activities and the use of additional portable equipment like negative air machines, fume extractors, and dust collectors with HEPA filters.	Potential temporary changes in noise volume due to construction activities needed for installation of equipment.
BCM-07 in 2016 AQMP	Installation of engineering controls, such as exhaust ventilation with dust collectors, the use of wet methods like wet-wiping or wet sweeping and vacuuming with a HEPA filter.	Potential temporary changes in noise volume due to construction activities needed for installation of equipment.
MCS-02 in 2022 AQMP	Mechanical thinning and chipping and grinding activities during fuel reduction and removal efforts.	Conducting mechanical thinning and chipping and grinding activities during fuel reduction and removal efforts.
MSC-01 in 2022 AQMP	Retrofitting existing equipment and installation of newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations.	Retrofitting existing equipment and removing older, higher-emitting equipment and installing newer, lower-emitting equipment to for sources.

TABLE VIII-9 (continued)

AQMP CONTROL MEASURES WITH POTENTIAL NOISE IMPACTS

Control Measure Number	Control Methodology	Potential Noise Impact
EGM-01 in 2022 AQMP	Replacing or upgrading off-road construction equipment as part of development/redevelopment efforts may result in the use of zero emission technologies in construction, the installation of electrical and alternative fuel infrastructure, the use of alternative fuels; and the use construction equipment with low-emitting engines fitted with diesel particulate filters (DPFs).	Installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in replaced or upgraded offroad construction equipment.
EGM-03 in 2022 AQMP	Incentivizing the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, DPF, low-emitting engines, and low VOC materials.	Installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in replaced or upgraded offroad construction equipment.
MOB-01 in 2022 AQMP	Infrastructure development required to achieve emission reductions at commercial marine ports from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft.	Installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft operating at commercial marine ports.
MOB-02A in 2022 AQMP	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in on-road heavy-duty vehicles, off-road equipment, and locomotives. operating at new rail yards and intermodal facilities; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.

TABLE VIII-9 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL NOISE IMPACTS

Control Measure Number	Control Methodology	Potential Noise Impact
MOB-02B in 2022 AQMP	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in on-road heavy-duty vehicles, off-road equipment, and locomotives. operating at new rail yards and intermodal facilities; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.
MOB-04 in 2022 AQMP	Deploying additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, DPFs, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports.	Installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in on-road heavy-duty vehicles, off-road equipment at commercial airports.
MOB-05 in 2022 AQMP	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.	Retiring and scrapping up to 2,000 light- and medium-duty vehicles per year; and installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in zero and near–zero emission vehicles.
MOB-06 in 2022 AQMP	Retiring older, heavy-duty vehicles and replacing them with low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).	Retiring and scrapping older, heavy-duty vehicles and installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).
MOB-07 in 2022 AQMP	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.	Retiring and scrapping older, heavy-duty vehicles and installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).

TABLE VIII-9 (concluded)
AQMP CONTROL MEASURES WITH POTENTIAL NOISE IMPACTS

Control Measure Number	Control Methodology	Potential Noise Impact
MOB-09 in 2022 AQMP	Promoting earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).	Retiring and scrapping or retrofitting existing passenger locomotives so that they are capable of achieving Tier 4 emission standards; and installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).
MOB-10 in 2022 AQMP	Accelerating the deployment of zero (e.g., battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding.	Retiring and scrapping off-road mobile equipment and installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in zero (e.g. battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5).

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2022 AQMP control measures list in Table VIII-9 have potential noise impacts due to construction and conducting mechanical thinning and chipping and grinding activities during fuel reduction and removal efforts.

Implementing the 2022 AQMP was expected to require construction activities that include: 1) installation of new equipment or devices; 2) removal of older equipment or devices; 3) modification or retrofit of existing equipment and facilities; and 4) modification of existing roadways to install new equipment and roadway infrastructure. The potential noise impact of construction activities would vary depending on the existing noise levels in the environment and the location of sensitive receptors (e.g., residences, hotels, hospitals, etc.) with respect to construction activities. Because no specific projects were proposed, the noise impacts were speculative. Potential modifications would occur at facilities typically located in appropriately zoned industrial or commercial areas, so construction noise impacts at stationary sources on sensitive receptors were expected to be less than significant. In addition, some of the control measures could result in minor construction activities that could create some minimal noise associated with replacing appliances such as water heaters, space heaters, cooking equipment, and pool heaters located in residential settings. Sources of noise for appliance replacement activities would be relatively brief and comprised of trucks delivering new appliances and hauling away old appliances, electronic hand trucks to maneuver the appliances to/from the truck to the residential location, and hand-tools to disconnect the old appliance and connect new appliance to the necessary electronic and plumbing components, as applicable. For these reasons, the Final Program EIR concluded that the construction noise impacts at residences would be less than significant.

The construction of roadway infrastructure would result in additional construction noise sources near transportation corridors, and it is not uncommon for residences and other sensitive receptors to be located within several hundred feet of the existing roadways, so noise levels associated with construction activities could increase three dBA or greater and generate potentially significant noise impacts, although temporary. Vibration from construction activities could exceed the 72 vibration decibels (VdB) threshold for structures and sensitive receptors within 200 feet of construction activities if certain types of construction equipment were used and so was considered potentially significant. Therefore, the Final Program EIR for the 2022 AQMP concluded that noise and vibration impacts during construction activities were potentially significant and mitigation measures NS-1 to NS-14 were crafted and adopted with the intent of minimizing thee significant noise and vibration impacts. However, the overall noise and vibration impacts during construction activities would remain significant after mitigation is applied.

Control measure MCS-02 of the 2022 AQMP was designed as a preventative measure to thin out forestland by chipping and grinding greenwaste and wood waste to reduce the amount of fuel available for wildfires. Once the chipping and grinding work is completed for the season, no new sources of permanent operational noise are expected. Thinning and chipping activities typically require the use of chainsaws, dozers, and chippers/grinders. The noise levels for this type of equipment ranging from 85 to 110 dBA (forestryequipmentguide.com, 2019). The thinning and chipping activities should not require blasting, pile driving, and heavy earthmoving, therefore should not generate significant vibrations. Further, the areas that are most likely to require additional thinning and chipping are in San Bernardino Urban Wildland Interface where there are few sensitive receptors. For areas in forestlands where sensitive receptors are present, the areas surrounding existing structures are already required to be periodically cleared of woodwaste and greenwaste in order to maintain a defensible space around any structures. Therefore, the Final Program EIR for the 2016 AQMP concluded that operational noise impacts due to chipping and grinding greenwaste and wood waste were less than significant.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for the 2016 AQMP determined that the 2016 AQMP control measures in Table VIII-9 would create potential noise impacts due to construction and the increased occurrence of street sweeping activities.

Potential noise impacts associated with control measures BCM-05, BCM-06, and BCM-07 of the 2016 AQMP relate primarily to construction activities which could include the construction related to the installation of air pollution control equipment (e.g., enclosures and filtration systems). Because no specific projects were proposed, the noise impacts were speculative. Nonetheless, construction activities associated with control measures in the 2016 AQMP could occur throughout the Basin. The 2016 AQMP may require existing commercial or industrial owners/operators of affected facilities to install air pollution control equipment of modify their existing operations to reduce stationary source emissions. Potential modifications would occur at facilities typically located in appropriately zoned industrial or commercial areas. Installing air pollution control equipment could generate noise impacts, but virtually all of the

control equipment would be installed within industrial and commercial facilities, so that construction noise impacts at stationary sources on sensitive receptors were expected to be less than significant.

Street sweepers generally travel at slow speeds; so as to minimize traffic impacts, they are often used in the early morning or after peak hour traffic. The nominal operating speed for a street sweeper is about five miles per hour to ensure a thorough pickup of debris. In residential areas, street sweepers would likely be used during normal work hours as residential streets generally have less parking during these hours so the use of street sweepers on residential areas is generally conducted during the daytime. Street sweeping in commercial and industrial areas is generally conducted during off-peak hours to avoid traffic conflicts. Control measure BCM-03 of the 2016 AQMP was not expected to require new street sweeping in areas where there was no current street sweeping program in place. Instead, in areas that street sweeping was already conducted, the frequency when roads are swept may increase. The roads that were most likely to require additional sweeping are those located in industrial and commercial areas where sensitive receptors were typically not located. Therefore, because additional street sweeping was not expected to be required in residential or other noise-sensitive areas, additional street sweeping activities that may be required under control measure BCM-03 were not expected to result in significant noise impacts.

Mitigation Measures

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP developed targeted mitigation measures based on project-specific impacts related to noise which were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP and in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP, respectively, and are applicable to the proposed PM2.5 Plan control measures. The following mitigation measures for the 2022 AQMP and the 2016 AQMP, respectively are applicable to the PM2.5 Plan control measures.

Noise Mitigation Measures in the Final Program EIR for the 2022 AQMP

NS-1 Install temporary noise barriers to protect sensitive receptors from excessive noise levels during construction.

NS-2 Schedule construction activities consistent within the allowable hours pursuant to the applicable general plan noise element or noise ordinance. For construction activities located near sensitive receptors, ensure noise-generating construction activities (including truck deliveries, pile driving, and blasting) are limited to the least noise-sensitive times of day (e.g., weekdays during the daytime hours). Where construction activities are authorized to occur outside of the limits established by the noise element of the general plan or noise ordinance, notify affected sensitive receptors and all parties who will experience noise levels in excess of the allowable limits for the specified land use, of the anticipated level of exceedance and duration of exceedance; and provide a list of protective measures that can

be undertaken by the individual, including temporary relocation or use of hearing protective devices.

NS-3 Prohibit idling of construction equipment for extended periods of time in the vicinity of sensitive receptors.

NS-4 Post procedures and phone numbers at the construction site for notifying the Lead Agency staff, local Police Department, and construction contractor (during regular construction hours and off-hours), along with permitted construction days and hours, complaint procedures, and who to notify in the event of a problem.

NS-5 Notify neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of anticipated times when noise levels are expected to exceed limits established in the noise element of the general plan or noise ordinance.

NS-6 Hold a preconstruction meeting with job inspectors and the general contractor/onsite project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

NS-7 Designate an on-site construction complaint and enforcement manager for the project.

NS-8 Ensure that construction equipment is properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded.

NS-9 Use hydraulically or electrically powered tools (e.g., jack hammers, pavement breakers, and rock drills) for project construction to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust should be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used, if such jackets are commercially available, and this could achieve a further reduction of 5 dBA. Quieter procedures should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

NS-10 Locate fixed/stationary equipment (such as generators, compressors, rock crushers, and cement mixers) as far as possible from noise-sensitive receptors.

NS-11 Consider using flashing lights instead of audible back-up alarms on mobile equipment.

NS-12 For construction activities that require pile driving or other techniques that result in excessive noise or vibration, such as blasting, develop site-specific noise/vibration attenuation measures under the supervision of a qualified acoustical consultant.

NS-13 For construction activities at locations that require pile driving due to geological conditions, utilize quiet pile driving techniques such as predrilling the piles to the maximum feasible depth, where feasible. Predrilling pile holes will reduce the number of blows required to

completely seat the pile and will concentrate the pile driving activity closer to the ground where pile driving noise can be shielded more effectively by a noise barrier/curtain.

NS-14 Monitor the effectiveness of noise reduction measures by taking noise measurements and installing adaptive mitigation measures to achieve the standards for ambient noise levels established by the noise element of the general plan or noise ordinance.

Cumulative Impacts

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in significant adverse noise and vibration impacts during construction because vibration from construction activities could exceed the 72 vibration decibels (VdB) threshold for structures and sensitive receptors within 200 feet of construction activities if certain types of construction equipment were used. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in a significant increase to noise and vibration impacts during construction, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to noise and vibration during construction have been identified. Cumulative impacts to noise and vibration during construction for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for noise and vibration.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse noise and vibration impacts; however, the specific 2016 AQMP control measures upon which the PM2.5 Plan relies would not cause significant adverse noise and vibration impacts. The Final Program EIR concluded that there are other 2016 AQMP control measures which would result in significant adverse noise and vibration impacts, however, and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to noise and vibration impacts identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to noise were identified. Cumulative impacts to noise from implementation of the 2016 AQMP would remain significant and unavoidable.

Solid and Hazardous Waste

This section summarizes the potentially significant solid and hazardous waste impacts from implementing the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The solid and hazardous waste impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

Solid and hazardous waste impacts are significant if the generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Potential Impacts

The Final Program EIRs for the 2022 AQMP and the 2016 AQMP identified and evaluated the control measures that have the potential to generate solid and hazardous waste impacts. Table VIII-10 lists the 2022 AQMP and 2016 AQMP control measures with potential adverse impacts to solid and hazardous waste, control methodology, and potential impacts. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-10
AQMP CONTROL MEASURES WITH POTENTIAL SOLID AND HAZARDOUS WASTE IMPACTS

Control Measure Number	Control Methodology	Potential Solid and Hazardous Waste Impact
R-CMB-01 in 2022 AQMP	Installation of zero emission water heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Generation of waste from construction activities and disposal of old equipment.
R-CMB-02 in 2022 AQMP	Installation of zero emission space heaters and low NOx technologies (when zero emission is infeasible) in new and existing residences.	Generation of waste from construction activities and disposal of old equipment.
R-CMB-03 in 2022 AQMP	Installation of electric cooking devices, induction cooktops, or low-NOx burners in new and existing residences.	Generation of waste from construction activities and disposal of old equipment.
R-CMB-04 in 2022 AQMP	Installation of zero emission or low NOx technologies in new and existing residences to replace equipment such as pool heaters, dryers, grills, etc.	Generation of waste from construction activities and disposal of old equipment.
L-CMB-04 in 2022 AQMP	Installation of zero emission and low NOx technology alternatives to emergency ICEs.	Generation of waste from construction activities and disposal of old equipment.
L-CMB-06 in 2022 AQMP	Replacement of boilers with lower-emitting turbines, installation of zero emission and low NOx emissions technologies, and the application of stricter emission requirements for diesel internal combustion engines.	Generation of waste from construction activities, installation and operation of new catalyst technologies, and disposal of any replaced machinery.

TABLE VIII-10 (continued)

AQMP CONTROL MEASURES WITH POTENTIAL SOLID AND HAZARDOUS WASTE IMPACTS

Control Measure Number	Control Methodology	Potential Solid and Hazardous Waste Impact
L-CMB-09 in 2022 AQMP	Installation of low NOx and ultra-low NOx burners for incinerators and other associated equipment.	Generation of waste from construction activities and disposal of old equipment.
ECC-03 in 2022 AQMP	Incentivization of additional reductions in energy use associated with space heating, water heating, and other large residential energy sources through facilitating weatherization, replacing older appliances with highly efficient technologies and encouraging renewable energy adoption such as solar thermal and photovoltaics.	Generation of waste from construction activities and disposal of old equipment.
BCM-04 in 2016 AQMP	Acidifier application, manure removal, manure slurry injection, manure thermal gasification, and dietary manipulation/feed additives.	Generation of additional waste matter from use of acidifiers and removal of manure.
BCM-05 in 2016 AQMP	Installation and use of advanced catalyst technology for the conversion of ammonia.	Generation of waste from installing and maintaining new catalyst technologies and disposal of any replaced machinery.
BCM-10 in 2016 AQMP	Controls such as anaerobic digestion and organic processing technology, and restrictions for direct applications of un-composted waste to public lands.	Generation of additional waste due to restrictions on application of uncomposted greenwaste.
BCM-01 in 2016 AQMP	Installation of control equipment such as ESPs, filters, centrifugal separators, and misters.	Generation of solid waste from disposal of old equipment.
BCM-02 in 2016 AQMP	Phased-in use of drift eliminators with 0.001 percent drift rate for existing cooling towers.	Generation of solid waste from disposal of old equipment.
BCM-03 in 2016 AQMP	Reduction of track out from stationary sources by specifying street sweeping methods and frequency.	Generation of waste from additional street sweeping activities.
BCM-06 in 2016 AQMP	Exhaust ventilation to a fabric filter for permanent in-building abrasive blasting activities, and use of additional portable control equipment, such as negative air machines, portable fume extractors and portable dust collectors with HEPA filters.	Generation of waste from portable control equipment such as dust collectors.
BCM-07 in 2016 AQMP	Dry and wet dust control options to control PM including silica particles.	Generation of waste from dust collection measures.

TABLE VIII-10 (continued)
AQMP CONTROL MEASURES WITH POTENTIAL SOLID AND HAZARDOUS WASTE IMPACTS

Control Measure Number	Control Methodology	Potential Solid and Hazardous Waste Impact
MCS-02 in 2022 AQMP	Mechanical thinning and chipping and grinding activities during fuel reduction and removal efforts.	Generation of additional mulch from chipping and grinding wood and greenwaste due to wildfire prevention.
BCM-09 in 2016 AQMP	Construction/upgrading of wood burning hearths to cleaner hearth as well as an increase in the stringency of the curtailment program and education.	Generation of waste from disposal of old hearths and additional limitations on wood burning.
MCS-01 in 2022 AQMP	Retrofitting existing equipment and installation of newer, lower-emitting equipment to replace older, higher-emitting equipment for sources as a result of new emission limits introduced through federal, state, or local regulations.	Generation of waste from construction activities, installation and operation of new catalyst technologies, and disposal of any replaced machinery.
EGM-01 in 2022 AQMP	Replacing or upgrading off-road construction equipment as part of development/redevelopment efforts may result in the use of zero emission technologies in construction, the installation of electrical and alternative fuel infrastructure, the use of alternative fuels; and the use construction equipment with low-emitting engines fitted with diesel particulate filters (DPFs).	Generation of solid waste from disposal of old equipment and DPFs.
EGM-03 in 2022 AQMP	Incentivizing the use of zero emission and low NOx equipment by adopting a voluntary measure for municipalities and public agencies to reduce emissions generated by construction activities may include use of zero emission and low NOx construction equipment, dust control, alternative fuels, DPF, low-emitting engines, and low VOC materials.	Generation of solid waste from disposal of old equipment and DPFs.
MOB-01 in 2022 AQMP	Infrastructure development required to achieve emission reductions at commercial marine ports from on-road heavy-duty vehicles, ocean-going vessels, cargo handling equipment, locomotives, and harbor craft.	Generation of waste from construction activities and disposal of old equipment and DPFs.

TABLE VIII-10 (continued)

AQMP CONTROL MEASURES WITH POTENTIAL SOLID AND HAZARDOUS WASTE IMPACTS

Control Measure Number	Control Methodology	Potential Solid and Hazardous Waste Impact
MOB-2A in 2022 AQMP	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	Generation of waste from construction activities and disposal of old equipment and DPFs.
MOB-2B in 2022 AQMP	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available.	Generation of waste from construction activities and disposal of old equipment and DPFs.
MOB-04 in 2022 AQMP	Deploying additional cleaner technologies, such as increasing efficiencies, implementing air quality improvement options or by deploying zero emission and low NOx technologies, alternative fuels, DPFs, and low-emitting engines for additional equipment beyond the commitments made in the existing Memoranda of Understanding with the commercial airports.	Generation of waste from construction activities and disposal of old equipment and DPFs.
MOB-05 in 2022 AQMP	Accelerating the retirement of up to 2,000 light- and medium-duty vehicles per year through the Replace Your Ride Program and accelerating the penetration of zero and near–zero emission vehicles.	Generation of waste disposal of batteries and vehicle scrapping.
MOB-06 in 2022 AQMP	Retiring older, heavy-duty vehicles and replacing them with low NOx vehicles fueled with CNG or other alternative fuels (e.g., battery electric and hydrogen fuel cells).	Generation of waste disposal of batteries and vehicle scrapping.

TABLE VIII-10 (concluded)
AQMP CONTROL MEASURES WITH POTENTIAL SOLID AND HAZARDOUS WASTE IMPACTS

Control Measure Number	Control Methodology	Potential Solid and Hazardous Waste Impact
MOB-07 in 2022 AQMP	Incentivizing the early deployment of zero emission and low NOx emission heavy-duty trucks through the generation of mobile source emission credits.	Generation of waste disposal of batteries and vehicle scrapping.
MOB-08 in 2022 AQMP	Promoting the accelerated turn-over of in-use small off-road engines and other engines, such as gasoline- and diesel-powered commercial lawn and garden equipment through expanded voluntary exchange programs will contribute to the retirement of older off-road engines.	Generation of waste disposal of batteries and vehicle scrapping.
MOB-09 in 2022 AQMP	Promoting earlier and cleaner replacement or upgrade of existing passenger locomotives capable of achieving Tier 4 emission standards and supporting the development of zero emission or low NOx technologies (e.g., battery electric and hydrogen fuel cells).	Generation of waste disposal of batteries and vehicle scrapping.
MOB-10 in 2022 AQMP	Accelerating the deployment of zero (e.g., battery-electric or fuel cell powered equipment) and low NOx emission off-road mobile equipment (e.g., 90 percent cleaner than Tier 5) that do not receive public funding.	Generation of waste disposal of batteries and vehicle scrapping.

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP determined that the 2022 AQMP control measures listed in Table VIII-10 have potential solid and hazardous waste impacts due to the: 1) generation of waste from construction activities (including disposal of old equipment); 2) generation of waste from operational activities such as disposal of spent batteries and DPFs, and the installation and operation of new catalyst technologies; and 3) generation of mulch from chipping and grinding wood, and greenwaste.

Summary of Construction Solid and Hazardous Waste Impacts

In general, construction activities associated with installing air pollution control equipment and new industrial equipment (especially large equipment) could generate solid waste due to demolition and site preparation, grading, and excavating. Specifically, demolition activities could generate demolition waste while site preparation, grading, and excavating could uncover contaminated soils since the facilities

affected by the proposed project that would require additional air pollution control equipment are located in existing industrial or commercial areas. Excavated soil, if found to be contaminated, would need to be characterized, treated, and disposed of offsite in accordance with applicable regulations. Where appropriate, the soil can be recycled for reuse if it is considered or classified as non-hazardous waste, or it can be disposed of at a landfill that accepts non-hazardous waste. Otherwise, the material will need to be disposed of at a hazardous waste facility.

Residential and commercial control measures identified as requiring construction activities will entail a combination of: 1) swapping out old appliances or equipment that rely on natural gas (e.g., water heaters, space heaters, cooking devices, clothes dryers, pool heaters, small I.C. engines and other small combustion devices) and replacing them with new, electrified or low NOx appliances or equipment at existing residential and commercial land uses; and 2) installing new, electrified or low NOx appliances as part of new residential and commercial developments. In general, the motivation for replacing existing appliances and equipment with new zero emission or low NOx technology which will be more energy efficient is due to the existing equipment having reached the end of its useful life and/or the cost of repairs exceeding the cost for a replacement. The motivation is stimulated further if financial incentives are offered, such as those offered by local utilities to install more energy efficient appliances; an existing appliance may be replaced sooner than the end of its useful life. For any appliance or equipment that is removed and replaced with new zero emission or low NOx technology, the removed appliance or equipment will either be dismantled with the metals sold as scrap, or if the removed appliance or equipment still works, it may be sold for re-use outside of the South Coast AQMD jurisdiction. Based upon these considerations, the residential and commercial control measures are expected to generate minimal quantities of construction waste that would need to be sent to a landfill.

Due to the uncertainty of the future capacity of the landfills within South Coast AQMD's jurisdiction and the broad scope of equipment that could undergo modifications or replacement, the solid and hazardous waste impacts from construction were concluded to be potentially significant and mitigation measures were required. Since the project-specific mitigation for solid and hazardous waste impacts are the same for waste generated during construction and operation, the mitigation measures follow the discussion of operational impacts.

Summary of Operational Solid and Hazardous Waste Impacts

An increased use of fuel cell and electric hybrid vehicles is correspondingly expected to reduce the use of conventional vehicles within California and the South Coast AQMD jurisdiction. Conventional vehicles use lead-acid batteries; therefore, a reduction in the use of conventional vehicles would lead to a reduction in use of lead-acid batteries. The increased operation of electric vehicles associated with the implementation of the 2022 AQMP may actually result in a reduction of the amount of solid and hazardous waste generated in the South Coast AQMD's jurisdiction, as Li-ion batteries have a much longer life span than conventional lead-acid batteries. The recycling of batteries is also required under law. Further some manufacturers pay for used electric vehicle batteries. The value, size, and length of life of Li-ion batteries are such that recycling is expected to be more predominant than with lead acid batteries. Therefore, the use of electric

vehicles is not expected to result in an increase in the illegal or improper disposal of electric batteries. Further, batteries associated with electric cars are required to be diverted from landfills. Therefore, no significant increase in the disposal of hazardous or solid waste is expected due to increased use of electric vehicles.

A DPF is an exhaust aftertreatment device that traps diesel particulate matter as ash which are by-products of combustion engines that use diesel fuel. In order to reduce emissions from diesel engines, a DPF captures and stores exhaust soot, which must be periodically burned off to regenerate the filter media. The lifespan of a DPF varies based on the application and type of engine but can last from five to ten years or 10,000 or more hours of operation. During the regenerative process, no solid waste is generated. However, during the periodic cleaning of the DPF, the process involves manually removing the filter element from the housing and placing it in a cleaning station designed for this purpose. The ash is collected in the cleaning station and sent for disposal as solid waste. DPF ash is not specifically listed in the Federal Code of Regulations as a hazardous materials, but there may be metallic oxides in the ash which are hazardous to the environment and public health. Waste generators that operate DPF cleaning stations can either dispose of the DPF ash as hazardous waste or can have the waste tested using the Toxicity Characteristic Leaching Procedure (TCLP) which is a process that replicates the leaching process that would naturally occur when waste is buried in a municipal landfill. If the leachate contains any of the regulated contaminants at concentrations that are equal to or greater than the regulatory levels, then the DPF ash is considered hazardous waste. There are no hazardous waste landfills within the South Coast AQMD's jurisdiction. If the DPF ash is determined to be hazardous, the waste can be transported to permitted facilities located within and outside of California. There are two hazardous waste landfills in California: Clean Harbors landfill located in Buttonwillow and CWMI Kettleman Hills landfill in Kings County. The permitted capacity of Clean Harbors is in excess of 13 million cubic yards of waste material and the permitted capacity of CWMI Kettleman Hills is over 33 million cubic yards. Therefore, these two hazardous materials landfills would have sufficient capacity to handle the small amounts of waste that could be generated by ash collected from DPFs employed on equipment as part of implementing the proposed control measures. Therefore, the use of DPFs will generate less than significant levels of solid and hazardous waste in the form DPF ash which will need to be disposed of in either a municipal or hazardous waste landfill.

Selective catalytic reduction (SCR) technology is used to reduce NOx emissions from certain combustion sources, and requires periodic regeneration or replacement of the catalyst bed. Reuse and regeneration of catalyst is preferred due to the presence of precious metals in a variety of SCR catalysts and the cost of new catalyst; however, if the catalyst cannot be regenerated, the facilities are likely to haul the spent catalyst to a local cement manufacturing facility for recycling in lieu of disposal. The use of SCRs is expected to be limited to heavy industrial processes and not wide-spread. Therefore, due to the regeneration and recycling of catalysts used in SCRs and the fact that this technology is not expected to be widely used, less than significant impacts on solid and hazardous waste are expected.

The primary solid waste impact from retiring more vehicles as part of implementing the control measures is the accelerated replacement and disposal of equipment and parts earlier than the end of their useful

life. It is important to note that control measures do not mandate that older vehicle, engines, or other equipment be scrapped. The control measures allow for a number of different control methods to achieve the desired emission reductions, and the most cost-effective methods would be expected to be implemented. Control measures that would foster a transition to putting new equipment into service will also generally result in the concurrent retirement of the older equipment. Alternatively, some measures may encourage the advanced deployment of cleaner technologies without waiting for an equipment's end of useful life which will result in an air quality benefit. Scrap metal from vehicle replacements is expected to be recycled; however, some amount of waste scrapped vehicles and parts may be sent to landfills for disposal. Although the recycling and diversion activities will reduce the amount of waste entering landfills, it is difficult to quantify the waste that will be generated from the early retirement of equipment or the salvageable amount that would be recycled. Therefore, the early retirement of equipment is to have significant solid and hazardous waste impacts since available landfill space is limited to approximately 100,000 tons per day and only four of the solid waste landfills within the South Coast AQMD's jurisdiction have capacity past 2039.

Wood and greenwaste that is collected, chipped, and ground is a class of organic mulch that may be spread at or near the site where the wood and greenwaste is collected, spread on private or governmental properties, or delivered to processing facilities for composting. Mulch is natural wildfire preventative because it helps retain moisture whereby reducing water consumption for adjacent plants, enhances soil temperature insulation, reduces invasive week propagation, improves erosion and dust control, and mitigates soil compaction. The most cost-effective approach to implementing control measure MCS-02 is if the mulch generated from chipping and grinding greenwaste and woodwaste is spread at or near the location where the greenwaste and woodwaste was originally collected. Under this scenario, the chipped and ground greenwaste and woodwaste would not need to be transported via heavy-duty trucks to offsite compost facilities for processing. In the unlikely event that the site location or other unique circumstances makes the spreading of the mulch at its source infeasible, the chipped and ground greenwaste and woodwaste would need to be transported to a compost facility for processing. Within the South Coast AQMD jurisdiction, approximately 70 composting facilities are currently operating. Based upon these considerations, the volume of chipped and ground greenwaste and woodwaste that would need to be taken to an offsite compost facility is likely to be minimal and less than significant.

Construction waste from the installation of air pollution control equipment and operational waste from the early retirement of equipment were identified as having potentially significant impacts. Therefore, the Final Program EIR for the 2022 AQMP concluded that solid and hazardous waste impacts are potentially significant and mitigation measures SHW-1 to SHW-3 were crafted and adopted with the intent of minimizing the significant solid and hazardous waste impacts. However, the overall solid and hazardous waste would remain significant after mitigation is applied.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for the 2016 AQMP determined that the 2016 AQMP control measures listed in Table VIII-10 have potential solid and hazardous waste impacts due to use of air pollution technologies and retirement of equipment.

Implementation of control measures BCM-01, BCM-03, BCM-04, BCM-06, and BCM-07 of the 2016 AQMP could require the collection and disposal of additional particulate matter. While it is speculative to identify the number of facilities and the quantity of equipment that would utilize filters, particulate traps, and precipitators, the quantity of particulate matter collected on filters and from electrostatic precipitators is expected to be small. In some cases, waste generated will be hazardous (e.g., the collection of toxic emissions). The increase in the amount of waste generated from the use of filters and the collection of additional particulate matter are expected to be small, because filtration control equipment is already used in practice or required by existing rules, especially for stationary sources. Control measures that may include filtration control equipment will generally require increased control efficiencies and/or better housekeeping and maintenance requirements for the filtration devices. As a result, the incremental amount of material collected by filters is expected to be small. Further, the larger filters used in baghouses are cleaned and reused so minimal additional waste would be expected from filters themselves. Non-hazardous waste can be disposed of at a number of landfills in southern California. At the time of writing the Final Program EIR for the 2016 AQMP, the permitted capacity of the landfills in Los Angeles, Orange, Riverside, and San Bernardino counties was about 112,592 tons per day and have sufficient capacity to handle the small increase in waste. There are no hazardous waste landfills within the Southern California area. Hazardous waste would be transported to permitted facilities both within and outside of California. Hazardous waste was expected to be transported to Clean Harbors in Buttonwillow, California. The permitted capacity at the Buttonwillow landfill was in excess of 10 million cubic yards so it would have sufficient capacity to handle any small amounts of hazardous waste that could be collected by the filters, baghouses, or ESPs (Clean Harbors, 2015). The nearest out-of-state hazardous waste landfills are U.S. Ecology, Inc., located in Beatty, Nevada and Clean Harbors in Grassy Mountain, Utah. U.S. Ecology, Inc. was receiving waste and in the process of extending the operational capacity for an additional 35 years (U.S. Ecology, 2015). Clean Harbors was receiving waste and expected to continue to receive waste for an additional 70 years (Clean Harbors, 2015).

Implementation of control measure BCM-05 of the 2016 AQMP could result in the use of SCR units to control emissions. SCRs require periodic regeneration or replacement of the catalyst bed. Regeneration of catalyst is preferred, due to the high cost to purchase new catalyst; however, if the catalyst cannot be regenerated, precious metals contained in the catalyst can be recovered. These metals could then be recycled and the remaining material would most likely need to be disposed of at a landfill. The use of SCRs was expected to be limited to stationary sources such as refineries and electric generation facilities, or other heavy industrial uses (e.g., ports) so that SCR use was not expected to be widespread. Due to the regeneration of catalysts used in SCRs and the fact that this technology was not expected to be widely used because of cost, the Final Program EIR concluded that no significant impacts relative to waste disposal activities would be expected.

Implementation of control measures BCM-01, BCM-02, and BCM-09 of the 2016 AQMP could result in solid waste impacts from older equipment being taken out of service in the Basin and scrapped and disposed of in landfills. During the scrapping process, recoverable materials (e.g. metal components) are removed and then sent for recovery of metal content. The amount of solid waste landfilled as a result of the proposed control measures would be relatively small since most of the parts being replaced have commercial value as scrap metal. Any small increase that may occur from miscellaneous parts is expected to be within the permitted landfill capacity so that no significant impacts would be expected.

Based on the preceding discussion, the Final Program EIR for the 2016 AQMP concluded that solid and hazardous waste impacts were less than significant. Since no significant solid and hazardous waste impacts were identified, no mitigation measures were necessary or required.

Mitigation Measures

Only the Final Program EIR for the 2022 AQMP developed targeted mitigation measures based on project-specific impacts related to solid and hazardous waste which were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP and in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP, respectively, and are applicable to the proposed PM2.5 Plan control measures. The following mitigation measures for the 2022 AQMP are applicable to the PM2.5 Plan control measures.

Solid and Hazardous Waste Mitigation Measures in the Final Program EIR for the 2022 AQMP

SHW-1 During the planning, design, and project-level CEQA review process for individual development projects, lead agencies shall coordinate with waste management agencies and the appropriate local and regional jurisdictions to facilitate the development of measures and to encourage diversion of solid waste such as recycling and composting programs, as needed. This includes discouraging siting of new landfills unless all other waste reduction and prevention actions have been fully explored to minimize impacts to neighborhoods.

SHW-2 The lead agency should coordinate with waste management agencies, and the appropriate local and regional jurisdictions, to develop measures to facilitate and encourage diversion of solid waste such as recycling and composting programs.

SHW-3 In accordance with CEQA Guidelines Sections 15091(a)(2) and 15126.4(a)(1)(B), a Lead Agency for a project should consider mitigation measures to reduce the generation of solid waste, as applicable and feasible. These may include the integration of green building measures consistent with CALGreen (California Building Code Title 24) into project design including, but not limited to the following:

1) Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.

2) Include a waste management plan that promotes maximum C&D diversion.

3) Pursue source reduction through: a) the use of materials that are more durable and easier to repair and maintain; b) design to generate less scrap material through dimensional planning; c) increased recycled content; d) the use of reclaimed materials; and e) the use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings, etc.).

4) Reuse existing structure and shell in renovation projects.

5) Develop indoor recycling program and space.

6) Discourage the siting of new landfills unless all other waste reduction and prevention actions have been fully explored. If landfill siting or expansion is necessary, site landfills with an adequate landfill-owned, undeveloped land buffer to minimize the potential adverse impacts of the landfill in neighboring communities.

7) Discourage exporting locally generated waste outside of the southern California region during the construction and implementation of a project. Encourage disposal within the county where the waste originates as much as possible. Promote green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with South Coast AQMD and Connect SoCal policies can and should be required.

8) Encourage waste reduction goals and practices and look for opportunities for voluntary actions to exceed the 80 percent waste diversion target.

9) Encourage the development of local markets for waste prevention, reduction, and recycling practices by supporting recycled content and green procurement policies, as well as other waste prevention, reduction and recycling practices.

10) Develop ordinances that promote waste prevention and recycling activities such as requiring waste prevention and recycling efforts at all large events and venues, implementing recycled content procurement programs, and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities;

11) Develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts

12) Integrate reuse and recycling into residential industrial, institutional and commercial projects.

13) Provide education and publicity about reducing waste and available recycling services.

14) Implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.

Cumulative Impacts

Analysis in the Final Program EIR for the 2022 AQMP

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in significant adverse solid and hazardous waste impacts because of potential increases in waste produced during construction and operation activities. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in a significant increase in solid and hazardous waste, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to solid and hazardous waste have been identified. Cumulative impacts to solid and hazardous waste for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for solid and hazardous waste.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in less than significant impacts to solid and hazardous waste. However, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, the 2016 AQMP would contribute to cumulatively considerable impacts to solid and hazardous waste identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to solid and hazardous waste were identified. Cumulative impacts to solid and hazardous waste from implementation of the 2016 AQMP would remain significant and unavoidable.

Transportation

This section summarizes the potentially significant transportation impacts from implementing the proposed PM2.5 Plan control measures which rely on previously adopted control measures in the 2022 AQMP and 2016 AQMP. The transportation impacts for the 2022 AQMP and 2016 AQMP control measures were previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP.

Significance Criteria

Transportation impacts are significant if any of the following criteria apply:

- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation or contributes to changes in overall vehicle miles traveled.
- There is an increase in vehicle miles traveled that is substantial in relation to the existing travel activity.

- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees.
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day.
- Increase customer traffic by more than 700 visits per day.

It is important to note that the significance criteria for transportation impacts was revised in 2019, after the 2016 AQMP was adopted. The revisions were made in accordance with the 2019 update to the CEQA Guidelines which migrated the focus of the transportation analysis from relying on a congestion-based metric referred to as Level of Service (LOS) to instead rely on a distance-based metric referred to Vehicle Miles Traveled (VMT). Prior to 2019, the following significance criteria were applied to transportation analyses, including the transportation analysis conducted in the Final Program EIR for the 2016 AQMP.

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E, or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.

Potential Impacts

The Notice of Preparation of a Draft Program EIR and Initial Study for the 2022 AQMP concluded that significant transportation impacts during construction or operation were not expected to occur due to implementation of the 2022 AQMP because the control measures were not expected to result in an increase in VMT. Because none of the 2022 AQMP control measures would cause a potentially significant impact to transportation, the discussion on transportation impacts only focuses on the effects of the 2016 AQMP control measures. Table VIII-11 lists the 2016 AQMP control measures with potential adverse impacts to transportation, control methodology, and potential impacts. The control measures are presented and organized in the same manner as in Table VIII-2.

TABLE VIII-11
AQMP CONTROL MEASURES WITH POTENTIAL TRANSPORTATION IMPACTS

Control Measure Number	Control Methodology	Potential Transportation Impact
BCM-04 in 2016 AQMP	Acidifier application, manure removal, manure slurry injection, manure thermal gasification, and dietary manipulation/feed additives.	Potential temporary changes in traffic pattern/volume due to operational impacts due to deliveries of sodium bisulfate and increased waste disposal.
BCM-05 in 2016 AQMP	Installation and use of advanced catalyst technology for the conversion of ammonia.	Potential temporary changes in traffic pattern/volume due to construction activities and operational impacts due to deliveries of catalyst and increased waste disposal.

TABLE VIII-11 (concluded)

AQMP CONTROL MEASURES WITH POTENTIAL TRANSPORTATION IMPACTS

Control Measure Number	Control Methodology	Potential Transportation Impact
BCM-03 in 2016 AQMP	Reduction of track out from stationary sources by specifying street sweeping methods and frequency.	Potential changes in traffic due to change in frequency of street sweeping activities.
BCM-06 in 2016 AQMP	Exhaust ventilation to a fabric filter for permanent in-building abrasive blasting activities, and use of additional portable control equipment, such as negative air machines, portable fume extractors and portable dust collectors with HEPA filters.	Potential temporary changes in traffic pattern/volume due to construction activities and operational impacts due to increased waste disposal.
BCM-07 in 2016 AQMP	Dry and wet dust control options to control PM including silica particles.	Potential temporary changes in traffic pattern/volume due to construction activities and operational impacts due to increased waste disposal.
BCM-09 in 2016 AQMP	Construction/upgrading of wood burning hearths to cleaner hearth as well as an increase in the stringency of the curtailment program and education.	Potential temporary changes in traffic pattern/volume due to construction activities and operational impacts due to increased waste disposal.

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for the 2016 AQMP determined that the above 2016 AQMP control measures will cause potential temporary changes in traffic due to construction activities, and operational impacts due to deliveries of sodium bisulfate and catalyst, and increased waste disposal. There are also potential changes in traffic due to change in frequency of street sweeping activities.

Construction activities would generate traffic associated with construction worker vehicles and trucks delivering equipment, and materials and supplies to the project site during the duration of the construction activities. Additional traffic will be generated by the 2016 AQMP due to the need to transport increased waste for disposal (e.g., construction debris). Heavy construction equipment such as backhoes, cranes, cherry pickers, front end loaders, and other types of equipment would be used to carry out the construction activities. Construction activities would be expected to occur within or adjacent to existing roadways which could require lane closures to protect construction workers and avoid traffic conflicts. Therefore, the Final Program EIR for the 2022 AQMP concluded that traffic and transportation impacts due to construction, though temporary in nature, were potentially significant, mitigation measure TR-1 should be implemented to minimize significant traffic and transportation impacts, but overall traffic and transportation impacts due to construction after mitigation is applied would remain significant.

Additional traffic will be generated by the 2016 AQMP due to the need to transport increased waste for disposal (e.g., waste from air pollution control equipment, such as filters), and increased waste material

for recycling (e.g., catalysts), increased use of products (e.g., ammonia, catalysts, sodium bisulfate). At the time of writing the Final Program EIR for the 2016 AQMP, it was not known what control strategies may be applied, which facilities may require additional trips, or how often these trips may be necessary. Therefore, no traffic estimates could be prepared. The impacts of the proposed project on traffic and transportation were expected to be significant prior to mitigation. While mitigation measures could help minimize some of the impacts, the South Coast AQMD cannot predict how a future lead agency might choose to mitigate a particular significant traffic and transportation impact. Thus, the future traffic and transportation impacts were considered to be significant due to implementation of the 2016 AQMP control measures.

Mitigation Measure

The Final Program EIR for the 2016 AQMP developed a targeted mitigation measure based on project-specific impacts related to transportation.

Transportation Mitigation Measure in the Final Program EIR for the 2016 AQMP

TR-1 Develop a construction management plan that includes at least the following items and requirements, if determined to be feasible by the Lead Agency:

- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes;
- Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur;
- Location of construction staging areas for materials, equipment, and vehicles at an approved location;
- A process for responding to and tracking complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. The Lead Agency shall be informed who the Manager is prior to the issuance of the first permit;
- Provision for accommodation of pedestrian flow;
- As necessary, provision for parking management and spaces for all construction workers to ensure that construction workers do not park in street spaces;
- Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the project sponsor's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the Lead Agency (or other appropriate government agency) and/or photo

documentation, at the sponsor's expense, before the issuance of a Certificate of Occupancy;

- Any heavy equipment brought to the construction site shall be transported by truck, where feasible;
- No materials or equipment shall be stored on the traveled roadway at any time;
- Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion;
- All equipment shall be equipped with mufflers;
- Prior to the end of each work-day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors; and
- Promote “least polluting” ways to connect people and goods to their destinations.

Cumulative Impacts

Analysis in the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse transportation impacts due to construction activities and operational impacts due to deliveries of sodium bisulfate and catalyst, and increased waste disposal. Mitigation measure TR-1 was crafted and adopted with the intention of reducing the transportation impacts during construction. However, the transportation impacts during construction would remain significant after mitigation is applied. No mitigation measures were identified for operational transportation impacts. The 2016 AQMP control measures would result in significant adverse transportation impacts and when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the SCAG 2016 RTP/SCS, would contribute to cumulatively considerable impacts to air quality identified in the 2016 RTP/SCS. No additional mitigation measures to reduce the significant cumulative impacts to transportation were identified. Cumulative impacts to transportation from implementation of the 2016 AQMP would remain significant and unavoidable.

Other Environmental Topic Areas

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP control measures would either have no impacts or less than significant impacts for the following environmental topic areas: aesthetics, agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources, population and housing, public services, recreation, transportation, and wildfire. Implementation of the PM2.5 Plan control measures whose proposed methods of control are the same as the corresponding 2022 AQMP control measures

they rely on, will similarly have no impacts or less than significant impacts on the aforementioned environmental topic areas.

The Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP control measures would either have no impacts or less than significant impacts for the following environmental topic areas: agriculture and forestry resources, biological resources, cultural resources; energy; geology and soils; land use and planning; mineral resources; population and housing; public services and recreation. Implementation of the PM2.5 Plan control measures whose proposed methods of control are the same as the corresponding 2016 AQMP control measures they rely on, will similarly have no impacts or less than significant impacts on the aforementioned environmental topic areas.

The Final Program EIR for the 2016 AQMP analyzed potential impacts to aesthetics from 2016 AQMP control measures that the PM2.5 Plan is not relying on. Aesthetics impacts during construction and operation were concluded to be potentially significant and mitigation measures were adopted. While mitigation was intended to minimize significant aesthetics impacts during construction and operation, the analysis concluded that the overall aesthetics impacts would remain significant after mitigation is applied.

Environmental Impact Analysis of Additional Physical Changes from Control Measure BCM-12 of the PM2.5 Plan

Proposed control measure BCM-12 in the PM2.5 Plan proposes a future amendment to South Coast AQMD Rule 1138 – Control of Emissions From Restaurant Operations to make the exemption criteria applicable to chain-driven charbroilers in paragraph (e)(1), more stringent by providing an option for the owner or operator to either accept a permit condition limiting the amount of meat cooked per week from 875 pounds to 400 pounds or install integrated catalytic oxidizer technology. By comparison, control measure BCM-01 of the 2016 AQMP contemplated reliance on add-on air pollution control equipment and devices such as such as ESPs, filters, centrifugal separators, and misters for under-fired charbroilers in order to achieve reductions in PM.

The potential for increased deployment of PM control equipment for under-fired charbroilers and the potential environmental impacts associated with the installation and operation of the aforementioned PM control equipment were analyzed in the Final Program EIR for the 2016 AQMP.

Implementation of BCM-12 of the PM2.5 Plan is expected to result in the potential installation and operation of catalytic oxidizers for certain chain-driven charbroilers that were either not originally manufactured with a catalytic oxidizer or equivalent or more stringent PM control equipment or device. Therefore, the potential retrofit of chain-driven charbroilers with catalytic oxidizers is the only new physical change anticipated from implementing control measure BCM-12 of the PM2.5 Plan that was not previously contemplated or analyzed in the Final Program EIR for the 2016 AQMP.

Rule 1138 requires that no person shall operate an existing or new chain-driven charbroiler unless it is equipped and operated with a catalytic oxidizer control device or other control device or method if found

to be as or more effective than the catalytic oxidizer in reducing PM and VOC emissions. South Coast AQMD therefore certifies charbroilers with integrated catalytic oxidizers.[11] The two most common catalysts available are the BASF CHARCat™ and Nieco Incendalyst™.

The BASF CHARCat™ 900 and 910 catalyst beds sit atop the charbroiler unit, and are no more than 25 inches long by 25 inches wide by four inches high. The catalyst is encased in a food grade stainless steel frame with heavy duty stainless steel protective screens on both faces. No utility hookup is required as the broiler exhaust heat directs the PM emissions through the catalytic oxidizer. Cleaning and maintenance involves soaking the catalyst in warm water to remove built-up residue, but other manufacturer-specified cleaning materials may be used as well.[12] Because the catalytic oxidizer is small in size and connected to the charbroiler unit itself, and catalyst bed is removed regularly for maintenance, installation of the catalytic oxidizer is not expected to require construction equipment other than hand tools.

The Nieco Incendalyst™ catalyst bed also sits directly on top of the charbroiler unit. The catalyst is encased in a stainless steel frame. No utility hookup is required as the broiler exhaust heat directs the PM emissions through the catalytic oxidizer. Maintenance is minimal and includes daily rinsing with hot water and no chemicals. No special tools are required for detaching the catalyst bed from the charbroiler; when cool to the touch, it can be manually lifted and removed.[13,14] Similar to the BASF CHARCat™, installation of Nieco Incendalyst™ catalyst is minimal and not expected to require construction equipment other than hand tools.

[11] South Coast AQMD, South Coast AQMD Certified Charbroilers with Integrated Catalysts, May 2023. https://www.aqmd.gov/docs/default-source/permitting/product-certification/charbroilerscatalysts.pdf

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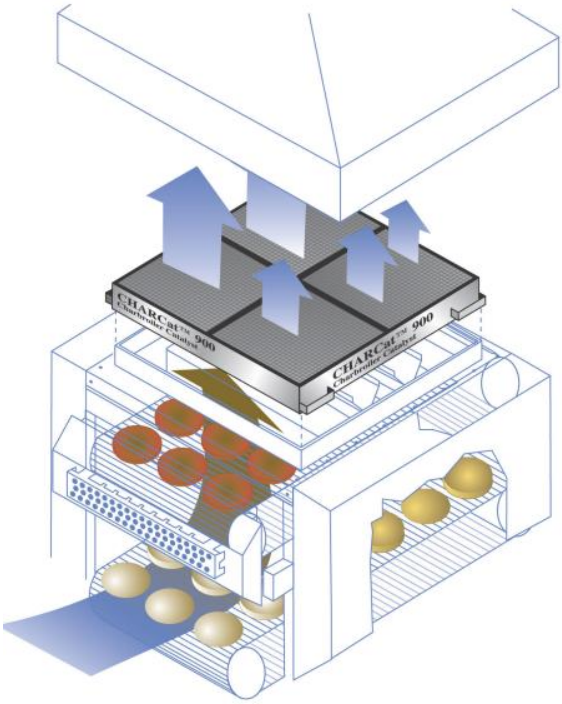

Figure VIII-1
BASF CHARCat™ 900

Figure VIII-2
Nieco Incendalyst™

Other chain-driven charbroiler catalytic oxidizers are expected to be installed and operated in a similar manner as the BASF CHARCat™ and Nieco Incendalyst™, resulting in similar physical changes and minimal environmental impacts.

The following sections examine the potential environmental impacts from installing and operating catalytic oxidizers on chain-driven charbroilers, and identify whether any changes are necessary to the prior analysis and conclusion of the impacts relating to control measure BCM-01 of the 2016 AQMP upon which the PM2.5 Plan relies for control measure BCM-12.

Air Quality and Greenhouse Gas Emissions

Summary of Construction Air Quality Impacts

Catalytic oxidizers can be installed primarily with hand tools so little to no construction emissions are expected. In addition, the installation is expected to be accomplished by existing restaurant staff such that no additional worker trips are generated. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have no air quality impacts during construction. For this reason, the conclusion in the Final Program EIR for the 2016 AQMP that construction air quality impacts are potentially significant, will remain unchanged if control measure BCM-12 is implemented.

Summary of Operational Air Quality Impacts

Catalytic oxidizers sit on top of charbroiler units such that exhaust heat from the charbroilers will direct PM through the catalyst bed. Since the functionality of the catalytic oxidizers solely rely on the natural air draft instead of blowers, for example, no electrical connections would be needed. Since no electricity would be utilized, no air emissions associated with electricity generation would be expected. Maintenance of the catalyst beds requires manually rinsing or soaking with water so no impacts to air quality would be expected. For these reasons, no adverse operational air quality impacts are expected. Further, because the catalytic oxidizers will reduce PM and VOC emissions from chain-driven charbroiler units (though the PM2.5 Plan is only claiming credits for PM reductions for this control measure), an air quality benefit will be expected if control measure BCM-12 of the PM2.5 Plan is implemented. Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that operational air quality impacts are less than significant would not be adversely affected if control measure BCM-12 of the PM2.5 Plan is implemented.

Summary of Greenhouse Gas Emissions Impacts

As explained in the preceding summary of construction air quality impacts, catalytic oxidizers can be installed primarily with hand tools so little to no construction emissions, including GHG emissions, are expected. Since a catalytic oxidizer is sited atop of the charbroiler, its functionality solely relies on the natural air draft instead of blowers, for example; thus, no electrical connections would be needed. Since no electricity would be utilized, no emissions of air pollutants, including GHGs, emissions, that would ordinarily be associated with electricity generation would be expected if control measure BCM-12 of the

PM2.5 Plan is implemented. Further, while catalytic oxidizers are capable of reducing PM and VOC emissions, this technology is not capable of controlling or reducing GHG emissions. Therefore, no benefit of reducing GHG emissions would be expected. Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that GHG impacts are less than significant would not be adversely affected by the implementation of control measure BCM-12.

The overall conclusion in the Final Program EIR for the 2016 AQMP that air quality impacts during construction would be significant and unavoidable would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not contribute to any new air quality and GHG impacts, or make existing air quality and GHG impacts more severe, no additional mitigation measures will be required. Nonetheless, the overall conclusion of significant air quality and GHG impacts in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to air quality during construction, but would not contribute to cumulatively considerable impacts to air quality during operation or GHG emissions.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have no air quality impacts during construction and GHG emissions, and a net benefit to air quality during operation, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to air quality. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to air quality would remain significant and unavoidable.

Energy

As explained in the preceding section which discussed air quality and GHG impacts, a catalytic oxidizer sits atop of the charbroiler such that the natural draft caused by the heat of the exhaust will direct PM generated from charbroiling meat through the catalyst bed without the use of electricity. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will not cause any adverse energy impacts.

Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that energy impacts would be potentially significant would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not contribute to any new energy impacts or make existing energy impacts more severe, no additional mitigation measures will be required. Nonetheless, the overall conclusion of significant energy impacts in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in

particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to energy demand.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have no impact to energy demand, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to energy. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to energy remain significant and unavoidable.

Hazards and Hazardous Materials

Catalytic oxidizers are designed for use in the restaurant setting; their operation and use are not expected to cause non-compliance with any safety standard nor expose people to hazardous chemicals. The catalyst is encased in a stainless-steel frame and is not intended to be removed from its casing. Maintenance is minimal and includes daily rinsing with water. No special tools are required for detaching the catalyst bed from the charbroiler; when cool to the touch, it can be manually lifted and removed. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have no impact to hazards and hazardous materials.

Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that hazards and hazardous materials impacts would be potentially significant would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not contribute to any new hazards and hazardous materials impacts, additional mitigation measures will not be required. Nonetheless, the overall conclusion of significant hazards and hazardous materials impacts in the in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to hazards and hazardous materials due to fire hazards, use of liquified natural gas and ammonia, and use of hazardous materials near sensitive receptors.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have no impacts to hazards and hazardous materials, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to hazards and hazardous materials. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to hazards and hazardous materials remain significant and unavoidable.

Hydrology and Water Quality

Similar to the end-of-day cleaning of the charbroiler unit itself, maintenance of the catalytic oxidizer unit requires soaking or daily rinsing of the catalyst with warm water. For context, the size of the catalyst is

relatively small at approximately 25 inches long by 25 inches wide by four inches high, which is equivalent to 1.4 cubic feet and is capable of fitting inside a 10-gallon capacity wash bucket. If the catalyst is soaked in the bucket, approximately 10 gallons of additional water per day per restaurant would be needed for cleaning purposes. It is more likely that the catalyst bed will be rinsed in the same manner that dishes are rinsed, and this method uses less water. For these reasons, the quantity of additional wastewater generated from cleaning the catalyst is expected to be minimal with little impact on the capacity of existing wastewater treatment facilities. The composition of the wastewater from cleaning the catalyst is also expected to contain fats and oils from the cooked meats which will be the same or similar composition as the wastewater from cleaning the charbroiler itself, which is typical from existing restaurants operating charbroilers. Since the wastewater from cleaning the catalyst is expected to be similar to other wastewater already generated at charbroiler restaurants as part of their daily hygienic cleaning routines, no modification to industrial wastewater permits would be expected. Future rule development and amendments to Rule 1138 will provide more details regarding the number of catalytic oxidizers that would be installed and operated, and corresponding impact to hydrology and water quality. Nonetheless, operation of catalytic oxidizers is expected to have less than significant impact to hydrology and water quality. Hence, implementation of control measure BCM-12 of the PM2.5 Plan is not expected to cause any adverse hydrology and water quality impacts.

Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that hydrology and water quality impacts would be potentially significant would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not make hydrology and water quality impacts significantly worse, no additional mitigation measures will be required. Nonetheless, the overall conclusion of significant hydrology and water quality impacts in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to water demand.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have minimal to no impact to water demand, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to hydrology and water quality. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to hydrology and water quality remain significant and unavoidable.

Noise

Installation of catalytic oxidizers is expected to be accomplished with hand tools which could generate additional minimal, temporary noise inside the restaurant; however, any such noise is not expected to be noticeable outside of the restaurant and will likely be indistinguishable from the background noise levels. Since catalytic oxidizers operate passively by only relying on the natural draft of the exhaust from the

charbroiler, no noise is expected from the catalytic oxidizer after it is installed and operational. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have minimal to no impact on noise.

Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that noise impacts would be potentially significant would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not contribute to any new noise impacts or make existing noise impacts more severe, no additional mitigation measures will be required. Nonetheless, the overall conclusion of significant noise impacts in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to noise and vibration during construction and noise during operation.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have no impact to noise, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to noise. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to noise remain significant and unavoidable.

Solid and Hazardous Waste

Maintenance of the catalyst requires rinsing or soaking with water; no additional solid or hazardous waste is expected to be generated with operation of the catalytic oxidizers. At the end of useful life, catalytic oxidizer parts are expected to be sold and repurposed: the stainless-steel metal housing of the catalyst bed will likely be sold as recycled scrap metal, and the catalyst recycled due to containing precious metals. Minimal to no waste is expected to be sent do a landfill. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have no impact to solid and hazardous waste.

Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that solid and hazardous waste impacts would be potentially significant would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not contribute to any new solid and hazardous waste impacts or make existing solid and hazardous waste impacts more severe, no additional mitigation measures will be required. Nonetheless, the overall conclusion of significant solid and hazardous waste impacts in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to solid and hazardous waste from construction and vehicle scrapping.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to generate minimal to no waste that will be sent to landfills, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to solid and hazardous waste. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to solid and hazardous waste remain significant and unavoidable.

Transportation

As explained the in preceding section about the air quality impacts during construction, aside from the initial, one-time delivery of the catalytic oxidizer to the restaurant, the installation of the catalytic oxidizer is expected to be accomplished by existing restaurant staff onsite such that no additional worker trips are expected. Further, once installed and operational, no additional trips associated with maintenance will be expected. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have minimal to no impact on transportation.

Thus, the overall conclusion in the Final Program EIR for the 2016 AQMP that transportation impacts would be potentially significant would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers will not contribute to transportation impacts, no additional mitigation measures will be required. Nonetheless, the overall conclusion of significant transportation impacts in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to transportation.

However, since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have minimal to no impact to transportation, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to transportation. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to transportation remain significant and unavoidable.

Other Environmental Topic Areas

Catalytic oxidizers sit atop of the charbroiler units within restaurants, and no major physical changes are expected to the restaurants nor the land the restaurants are located on. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have no impact to aesthetics, agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources or wildfires. Use of catalytic oxidizers at restaurants is designed to reduce air pollutants and as such is not expected to adversely affect the population nor the resources impacting

quality of life. Therefore, implementation of control measure BCM-12 of the PM2.5 Plan will have no impact to population and housing, public services, and recreation.

Thus, the overall conclusions in the Final Program EIR for the 2016 AQMP that aesthetics impacts would be potentially significant and impacts to all other environmental topic areas listed above, excepting tribal cultural resources and wildfire because they were added to CEQA Guidelines in 2019, would be less than significant, would not be adversely affected by the implementation of control measure BCM-12. Because installation and operation of catalytic oxidizers would not contribute to any new impacts in these environmental topic areas or make existing impacts more severe, no additional mitigation measures are required. The overall conclusions of significance for these environmental topic areas in Final Program EIR for the 2016 AQMP will remain unchanged if BCM-12 is implemented.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to aesthetics, but would not contribute to cumulative considerable impacts to the other environmental topic areas.

Since implementation of control measure BCM-12 of the PM2.5 Plan is expected to have no impact on any of the above environmental topic areas, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to aesthetics remain significant and unavoidable, and there are no cumulative impacts to the environmental topic areas of agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources, population and housing, public services, recreation, or wildfire.

Conclusion

The majority of the PM2.5 Plan relies on control measures that were previously adopted in the 2022 AQMP and the 2016 AQMP, and proposes to expand the methods of control and effects of implementation for only one control measure, BCM-12, when compared to the previous 2016 AQMP control measure on which it relies, BCM-01 of the 2016 AQMP. In addition, the PM2.5 Plan proposes one new control measure, BCM-19, which does not rely on any previously adopted control measure in either the 2022 AQMP or 2016 AQMP.

New control measure BCM-19 proposes to develop an inventory of unpaved roads and parking lots within urban areas in the Basin, and assess the suitability for paving. Implementation of control measure BCM-19 of the PM2.5 Plan is an administrative exercise that will not result in physical changes. Therefore, no potential adverse environmental impacts are expected from implementation of control measure BCM-19.

Proposed control measure BCM-12 in the PM2.5 Plan proposes a future amendment to South Coast AQMD Rule 1138 – Control of Emissions From Restaurant Operations to make the exemption criteria applicable to chain-driven charbroilers in paragraph (e)(1), more stringent by providing an option for the owner or operator to either accept a permit condition limiting the amount of meat cooked per week from 875 pounds to 400 pounds or install integrated catalytic oxidizer technology. By comparison, control measure BCM-01 of the 2016 AQMP contemplated the reliance on add-on air pollution control equipment and devices such as such as ESPs, filters, centrifugal separators, and misters for under-fired charbroilers in order to achieve reductions in PM. The potential for increased deployment of PM control equipment for under-fired charbroilers and the potential environmental impacts associated with the installation and operation of the aforementioned PM control equipment were analyzed in the Final Program EIR for the 2016 AQMP. Implementation of BCM-12 of the PM2.5 Plan is expected to result in the potential installation and operation of catalytic oxidizers for certain chain-driven charbroilers that were either not originally manufactured with a catalytic oxidizer or equivalent or more stringent PM control equipment or device. Therefore, the potential retrofit of chain-driven charbroilers with catalytic oxidizers is the only new physical change anticipated from implementing control measure BCM-12 of the PM2.5 Plan that was not previously contemplated or analyzed in the Final Program EIR for the 2016 AQMP.

All other control measures proposed in the PM2.5 Plan are similar to their equivalent applicable adopted control measure in the 2022 AQMP and 2016 AQMP, as applicable, such that implementation of these PM2.5 Plan control measures is not expected to result in physical changes not previously analyzed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP. The Final Program EIR for the 2022 AQMP concluded potentially significant impacts to the environmental topic areas of air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste. As discussed in the "Summary of Environmental Impact Analysis from the Final Program EIRs for the 2022 AQMP and the 2016 AQMP," mitigation measures were adopted for certain environmental topic areas which had conclusions of potentially significant impacts. Nonetheless, no environmental topic area identified as having a potentially significant impact in Final Program EIRs for the 2022 AQMP and the 2016 AQMP was capable of being mitigated to less than significant levels. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, implementation of the 2022 AQMP would result in significant environmental impacts. No additional mitigation measures to reduce the significant cumulative impacts were identified, and cumulative impacts to the environmental topic areas of air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste remained significant and unavoidable.

The Final Program EIR for 2016 AQMP concluded potential significant impacts to the environmental topic areas of aesthetics, air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic. As explained in the "Summary of Environmental Impact Analysis from the Final Program EIRs for the 2022 AQMP and the 2016 AQMP," mitigation measures were adopted for certain environmental topic areas which had conclusions of potentially significant impacts. Nonetheless, no environmental topic area identified as having a potentially significant impact was capable of being mitigated to less than significant levels. When

combined with the other past, present, and reasonably foreseeable activities, in particular the transportation projects projected in the 2016 RTP/SCS, implementation of the 2016 AQMP would result in significant environmental impacts. No additional mitigation measures to reduce the significant cumulative impacts were identified, and cumulative impacts to the environmental topic areas of air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic remained significant and unavoidable.

The installation and operation of catalytic oxidizers was determined to have no impact to air quality due to construction, a net air quality benefit due to operation, and no impact on greenhouse gas emissions. Because maintenance and cleaning the catalytic oxidizer requires soaking or rinsing the catalyst bed, operation of the catalytic oxidizer is expected to have a less than significant impact to hydrology and water quality. Because the Final Program EIR for the 2016 AQMP analyzed much greater wastewater generation, water quality impacts, and water demand impacts from PM control for under-fired charbroilers such as ESPs, centrifugal separators, and misters, maintenance and cleaning of the catalytic oxidizers is not expected to make the previous significance determinations, more severe. Lastly, installation and operation of catalytic oxidizers was determined to have no impact on all other environmental topic areas.

Therefore, the environmental impacts associated with installing catalytic oxidizers on chain-driven charbroilers in control measure BCM-12 of the PM2.5 Plan are not substantially different from what was previously analyzed in the Final Program EIR for the 2016 AQMP for BCM-01. Thus, no new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration pursuant to CEQA Guidelines Section 15168(c)(1). No substantial changes are proposed to the previously adopted control measures in the 2022 AQMP and the 2016 AQMP which are being relied upon in the PM2.5 Plan. Further, there is no new information of substantial importance to control measures that were previously adopted in the 2022 AQMP and 2016 AQMP, and the new information is not comprised of new significant effects or substantially worsened or more severe significant effects that were not previously analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. There is no change to the mitigation measures or alternatives previously considered in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP. Thus, in accordance with CEQA Guidelines Section 15168(c)(2), a subsequent EIR would not be required pursuant to CEQA Guidelines Section 15162.

Based on the preceding analysis, pursuant to CEQA Guidelines Section 15168(c)(2), the PM2.5 Plan is considered a later activity within the scope of the 2022 AQMP and 2016 AQMP projects covered by the Final Program EIRs for the 2022 AQMP and the 2016 AQMP. The mitigation measures developed in the Final Program EIRs for the 2022 AQMP and the 2016 AQMP for the previously adopted control measures in the 2022 AQMP and the 2016 AQMP upon which the proposed control measures in the PM2.5 Plan rely are also applicable to the implementation of the PM2.5 Plan and will remain in effect. [CEQA Guidelines Section 15168(c)(3)].

Therefore, the South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard (PM2.5 Plan) is considered a later activity within the scope of the Final Program EIRs for the 2022 AQMP and the 2016

AQMP and the Final Program EIRs for the 2022 AQMP and the 2016 AQMP adequately describe the later activity for the purposes of CEQA such that no new environmental document will be required.

References

The 2022 AQMP, along with the December 2022 Final Program EIR for the 2022 AQMP (State Clearinghouse No. 2022050287) and its corresponding Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, and the 2016 AQMP along with the March 2017 Final Program EIR for the 2016 AQMP (State Clearinghouse No. 2016071006) and its corresponding with Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, upon which the analysis of the PM2.5 Plan relies, are incorporated by reference pursuant to CEQA Guidelines Section 15150 and are available from the South Coast AQMD's website at:

December 2022 Final Program EIR for the 2022 AQMP
Master webpage: https://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/south-coast-aqmd-projects---year-2022

December 2022 Final Program EIR for the 2022 AQMP (including Appendices)
https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf

2022 AQMP: https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan

March 2017 Final Program EIR for the 2016 AQMP
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March 2017 Final Program EIR for the 2016 AQMP (without Appendices)
https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf

Appendices A through C: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir_appendicesac.pdf

Appendices D through E: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir_appendicesde.pdf

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf

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