



South Coast Air Quality Management District

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Mitigated Negative Declaration (MND) for the State Route 86/Avenue 50 New Interchange Project

South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final MND.

SCAQMD Staff's Summary of Project Description

The Lead Agency is proposing to build a new interchange at State Route (SR) 86 and Avenue 50 from Post Mile (PM) R19.2 to PM R21.6 (Proposed Project). The Proposed Project would also include construction of a bridge overcrossing of 326 feet in length and 122 feet in width, an additional bridge structure of 605 feet in length and 120 feet in width spanning the Coachella Valley Stormwater Channel (CVSC), and widening of a portion of Avenue 50 from two lanes to six lanes. The Proposed Project is located at the existing interchange between SR-86 and Dillon Road interchange in the City of Coachella. Based on a review of Figures 1-4a and 1-5a, *Build Alternative 7 Key Map and Build alternative 8 Key Map*, in the MND and aerial photographs, SCAQMD staff found that sensitive receptors such as residential uses are located in the immediate vicinity of the Proposed Project. Construction of the Proposed Project is expected to occur in two phases, lasting 12 months and 15 months sequentially, and would not overlap¹.

SCAQMD Staff's Summary of and General Comments on the Air Quality Analysis

In the Air Quality Analysis Section, the Lead Agency quantified the Proposed Project's construction emissions and found that air quality impacts from construction activities would not result in significant adverse air quality impacts. However, the Lead Agency did not use SCAQMD's regional CEQA air quality significance thresholds to determine the level of significance. Additionally, the Lead Agency did not conduct a localized air quality impact analysis. Moreover, the modeling parameters used to quantify the Proposed Project's construction emissions may have likely led to an underestimation of the emissions. To further reduce the Proposed Project's construction emissions, SCAQMD staff recommends additional new mitigation measures that the Lead Agency should consider and incorporate in the Final MND. Please see the attachment for more details.

Closing

Pursuant to CEQA Guidelines Section 15074, prior to approving the Proposed Project, the Lead Agency shall consider the MND for adoption together with any comments received during the public review process. Please provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the Final MND. When responding to issues raised in the comments, response should provide sufficient details giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual

¹ MND. Page 1-38.

information do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and to the public who are interested in the Proposed Project.

SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Robert Dalbeck, Assistant Air Quality Specialist, at rdalbeck@aqmd.gov if you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

Attachment

LS:RD

RVC181205-09

Control Number

ATTACHMENT

SCAQMD's Air Quality CEQA Thresholds of Significance

1. While CEQA permits a Lead Agency to apply appropriate thresholds to determine the level of significance, the Lead Agency may not apply thresholds in a manner that precludes consideration of substantial evidence demonstrating that there may be a significant effect on the environment. Evaluation of air quality impacts, unlike some other impact areas, easily lends itself to quantification. Not only does quantification make it easier for the public and decision-makers to understand the breadth and depth of the potential air quality impacts, but it also facilitates the identification of mitigation measures required to reduce any significant adverse air quality impacts. SCAQMD's CEQA thresholds of significance for air quality provide a clear quantitative benchmark to determine the significance of a project's air quality impacts. Therefore, for most projects within the SCAQMD, SCAQMD's air quality CEQA thresholds of significance for construction and operation² are used to determine the level of significance for a project's air quality impacts.

The Lead Agency quantified the Proposed Project's daily construction emissions in pounds per day³ and found that "the project would not violate any air quality standards⁴." The Lead Agency also stated the Proposed Project "has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA)⁵." As such, the Proposed Project's construction-related air quality impacts were found to be less than significant. To support this finding, the Lead Agency did not compare the estimated construction emissions to SCAQMD's regional air quality CEQA significance thresholds. Using SCAQMD's CEQA significance thresholds would clearly identify whether the build alternatives would result in significant air quality impacts under CEQA, disclose the magnitude of the impacts, facilitate the identification of feasible mitigation measures, and evaluate the level of impacts before and after mitigation measures. Therefore, SCAQMD staff recommends that the Lead Agency compare construction emissions to SCAQMD's regional air quality CEQA significance thresholds in the Final MND to determine the level of significance.

Localized Air Quality Impact Analysis during Construction

2. Air quality impacts from both construction (including demolition, if any) and operation activities should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips).

Based on a review of aerial photographs, SCAQMD staff found that sensitive receptors are located in within 25 feet of the Proposed Project. Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. They include schools, parks and playgrounds, daycare centers, nursing homes, elderly care facilities, hospitals, and residential dwelling units. The Lead Agency did not quantify the Proposed Project's localized construction emissions in the MND and compare those emissions to SCAQMD's localized significance thresholds (LSTs). Therefore, SCAQMD staff recommends that the Lead Agency quantify the Proposed Project's localized construction emissions and disclose the localized air quality impacts in the Final MND to ensure that any nearby sensitive receptors are not adversely affected by the construction

² South Coast Air Quality Management District. March 2015. *SCAQMD Air Quality Significance Thresholds*. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

³ MND. Table 2.2.6-3, Estimated Daily Construction Emissions. Page 2-203.

⁴ *Ibid.* Page 3-8.

⁵ *Ibid.* Page 3-1.

activities that are occurring in close proximity. SCAQMD guidance for performing a localized air quality analysis is available on SCAQMD’s website⁶.

Air Quality Modeling Parameters

Construction Schedule

- On pages 1-38 and 2-202 of the MND, the Lead Agency detailed the anticipated schedule of both construction phases, as well as the proposed construction activities in each phase. The Lead Agency identified phase one would occur over 12 months, beginning in November 2020, and phase two would occur over 15 months, beginning in November 2023. Therefore, the Lead Agency is anticipating approximately 27 months of construction activities, with an approximate two-year gap between each phase. However, in the air quality modeling, the Lead Agency estimated the Proposed Project’s construction emissions by using a 43-month construction schedule without distinguishing between phase one and phase two (see Figure 1 below). The Roadway Construction Emissions Model (RCEM) used the total amount of construction activity being proposed and the construction phase and duration input to calculate the estimated amount of daily construction activity, which determined the amount of construction equipment needed to facilitate the said activity. Therefore, by using an elongated construction schedule (43 months rather than 27 months), RCEM may have underestimated the amount of daily construction activity and subsequently underestimated the number of construction equipment that would be required each day and the maximum daily construction emissions. Therefore, SCAQMD staff recommends that the Lead Agency revise the air quality modeling to conduct a worst-case scenario impact analysis by independently modeling each construction phase in the respective years that construction activities would occur, or by combining both phases into one 27-month construction phase.

Figure 1: Screenshot from Roadway Construction Emissions Model for Construction Schedule Used to Estimate the Proposed Project’s Construction Emissions

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		4.30		1/1/2020
Grading/Excavation		17.20		5/11/2020
Drainage/Utilities/Sub-Grade		15.05		10/17/2021
Paving		6.45		1/18/2023
Totals (Months)		43		

Volume of Daily Material Import

- In the RCEM, the Lead Agency input 800 cubic yards of material to be imported each day during the Proposed Project’s grading/excavation construction phase. SCAQMD staff is concerned that the methodology used to estimate the amount of daily transported materials may have led to an underestimation. For example, the Lead Agency divided the total amount of transported materials [311,337 cubic yards (cy)] by the amount of days RCEM assumed for the grading/excavation construction phase [17.20 months or 378 days (22 work days per month)], equating to approximately 823 cubic yards per day. As commented above, the construction schedule used in RCEM was longer than the proposed schedule in the main body of the MND (e.g., 43 months instead of 27 months). Therefore, using a longer construction schedule would may have likely underestimated the amount of materials transported daily and subsequently underestimated the number of haul truck trips for materials delivery and transport needed each day and the maximum daily emissions associated with construction of the Proposed Project. SCAQMD staff recommends that the Lead Agency revise the

⁶ South Coast Air Quality Management District. *Localized Significance Thresholds*. Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

air modeling to recalculate the daily amount of materials import based on the actual anticipated days for grading/excavation activities within the 27-month construction period.

Haul Truck Emissions

- According to Table 2.2.6-3, *Estimated Daily Construction Emissions*, in the MND, the grading/excavation construction phase would result in the maximum amount of NOx emissions at 58.40 pounds per day (lbs/day). Additionally, the Lead Agency stated that “the emissions modeling is based on an estimate of 311,337 total cubic yards (CY) of earthwork (import).” However, based on a review of the RCEM parameters, SCAQMD staff found that emissions resulting from haul truck trips may not have been included in the calculations. For example, as shown in Figure 2 below, the Lead Agency did not include haul truck trips per day or daily vehicle miles traveled (VMT) in the RCEM input field for “Soil Hauling Emissions and/or “Asphalt Hauling Emissions.” Therefore, SCAQMD staff recommends that the Lead Agency revise the air modeling to account for the emissions from haul truck trips in the Final MND.

Figure 2: Screenshot from Roadway Construction Emissions Model on Haul Truck Trips Per Day

Soil Hauling Emissions		User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
User Input			30.00		0	0.00
Miles/round trip: Grubbing/Land Clearing			30.00		0	0.00
Miles/round trip: Grading/Excavation			30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade			30.00		0	0.00
Miles/round trip: Paving			30.00		0	0.00

Asphalt Hauling Emissions		User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT
User Input			30.00		0	0.00
Miles/round trip: Grubbing/Land Clearing			30.00		0	0.00
Miles/round trip: Grading/Excavation			30.00		0	0.00
Miles/round trip: Drainage/Utilities/Sub-Grade			30.00		0	0.00
Miles/round trip: Paving			30.00		0	0.00

Project Type in the Roadway Construction Emissions Model (RCEM)

- In the RCEM, the input field ‘Project Type’ was used to estimate the number and type of construction equipment that would likely be utilized for any given project. In the Proposed Project’s RCEM output file, SCAQMD staff found that the Lead Agency utilized Option 1, *New Road Construction*, for the “Project Type” field. According to the brief description found in RCEM⁷, Option 1 is most appropriately used when a project includes construction of a new roadway from bare ground, “which generally requires more site preparation than widening an existing roadway⁸.” Three other project types are Option 2: *Road Widening*; Option 3: *Bridge/Overpass Construction*; and Option 4, *Other Linear Project*. As stated above in the Summary of the Project Description, since the Proposed Project would include the construction of an overpassing and a new bridge structure, Option 3 would be an appropriate project type for use in RCEM. Therefore, SCAQMD staff recommends that the Lead Agency provide additional information in the Final MND to justify the use of Option 1 as the project type in RCEM.

Mitigation Measures (MM)

- CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse air quality impacts. To further reduce construction emissions from NOx, PM10, and PM2.5, as well as any adverse impacts from construction activities on nearby sensitive receptors, SCAQMD staff recommends that the Lead Agency incorporate the following mitigation measures in the Final MND.

⁷ MND, *Air Quality Report*, Appendix C, *Emissions Modeling Results*, Page 1.

⁸ *Ibid.*

- a) Require the use of Tier 4 emissions standards or better for off-road diesel-powered construction equipment of 50 horsepower or greater. To ensure that Tier 4 construction equipment or better will be used during the Proposed Project's construction, SCAQMD staff recommends that the Lead Agency include this requirement in applicable bid documents, purchase orders, and contracts. Successful contractor(s) must demonstrate the ability to supply the compliant construction equipment for use prior to any ground disturbing and construction activities. A copy of each unit's certified tier specification or model year specification and CARB or SCAQMD operating permit (if applicable) shall be available upon request at the time of mobilization of each applicable unit of equipment. Additionally, the Lead Agency should require periodic reporting and provision of written construction documents by construction contractor(s) to ensure compliance, and conduct regular inspections to the maximum extent feasible to ensure compliance.
- b) Require zero-emission or near-zero emission on-road haul trucks, if and when feasible. At a minimum, require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer trucks (e.g., material delivery trucks and soil import/export).
- c) Suspend all on-site construction activities when wind speeds (as instantaneous gusts) exceed 25 miles per hour.
- d) All trucks hauling dirt, sand, soil or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with California Vehicle Code Section 23114 (freeboard means vertical space between the top of the load and top of the trailer).
- e) Enter into a contract that notifies all construction vendors, contractors, and/or haul truck operators that vehicles and construction equipment idling time will be limited to no longer than five minutes, consistent with the California Air Resources Board's policy⁹. For any idling that is expected to take longer than five minutes, the engine should be shut off. Notify construction vendors, contractors, and/or haul truck operators of these idling requirements at the time that the purchase order is issued and again when vehicles enter the Proposed Project site. To further ensure that drivers understand the vehicle idling requirement, post signs at the Proposed Project site stating that idling longer than five minutes is not permitted.

⁹ California Air Resources Board. June 2009. *Written Idling Policy Guidelines*. Accessed at: <https://www.arb.ca.gov/msprog/ordiesel/guidance/writtenidlingguide.pdf>.