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Caltrans-District 12, "Attn: 405 DEIR-DEIS Comment Period"
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**Review of the Draft Environmental Impact Report (EIR) for the
Interstate 405 (I-405) Project**

The South Coast Air Quality Management District (AQMD) staff appreciates the opportunity to comment on the above mentioned document. The AQMD staff is concerned about potential air quality impacts of this proposed project and that the Draft EIR provides an air quality analysis that is not adequate to determine these potential impacts pursuant to AQMD Guidance and CEQA Guidelines. As a result, the air quality impacts may be understated in the Draft EIR and potentially significant impacts may not have been disclosed to the public. The lead agency generally concludes that the project will have a net environmental benefit by reducing regional air quality impacts by improving traffic flow and reducing congestion in the project area. AQMD staff recognizes and supports the benefits of decreased traffic congestion that can reduce exhaust emissions from cars and trucks. However, the proposed project could increase health risk impacts to residents in close proximity to the Interstate 405 (I-405) Freeway. The project will add at least one general purpose lane to the I-405 Freeway (within the project area) and could provide one additional general purpose or toll express lane in each direction. As a result, the additional freeway lanes placed closer to residences could potentially increase localized impacts. Further, the addition of lanes will increase freeway capacity and could have potential growth inducing impacts.

There are several areas in which the Draft EIR has not adequately addressed the potential for air quality impacts. These include the determination of the project's health risk impacts to surrounding sensitive receptors, local and regional air quality impacts, climate change impacts, the use of an inappropriate CEQA baseline for existing conditions, growth inducing impacts, the lack of quantification of mitigation measure effectiveness, and the lack of consideration of additional alternatives/mitigation that would reduce overall VMT. Further, the lead agency has not provided sufficient information to demonstrate that the project is a transportation control measure (TCM) as stated in the Draft EIR. Because of the technical inadequacies of the draft EIR the AQMD staff strongly recommends that the lead agency revise the air quality analysis based on the comments contained within this letter.

Pursuant to Public Resources Code Section 21092.5, we request that the lead agency provide the AQMD with written responses to all comments contained herein prior to the adoption of the final EIR. Additional detailed comments on this project are attached to this letter. Should you have any questions, please contact Dan Garcia at (909) 396-3304.

Sincerely,



Ian MacMillan

Program Supervisor, CEQA Inter-Governmental Review
Planning, Rule Development & Area Sources

Attachment

IM:DG

ORC120523-02
Control Number

Transportation Control Measure

1. Page 1-21 of the Draft EIR states that the proposed project qualifies as a Transportation Control Measure (TCM), but does not provide any information in the Draft EIR to support this determination. AQMD notes that our 2007 Air Quality Management Plan (AQMP) does not identify the proposed project as a TCM. While certain elements of the project alternatives in the Draft EIR may be applicable to TCM ORA00193, this measure alone does not qualify the project as a TCM. As shown in Table 1 below TCM ORA00193 is specific to the design of “HOV to HOV lane connectors,” but this TCM captures only a small portion of the proposed project. Further, based on the operational emissions analysis the project will result in an increase of SOx, PM10 and PM2.5. Therefore, the AQMD staff strongly recommends that the lead agency provide clarification of the project’s qualifications as a TCM.

Table 1: ORA000193 Listed in the 2007 AQMP

Final 2007 AQMP
June 2007

**2007 AQMP TCM Projects
(from 2006 RTIP)**

Appendix IV-C

| HOV Improvements - HOV Bypasses, Connectors, and New Interchange with Ramp Meters | | | |
|---|------------|---|---------------------------|
| Lead Agency | Project ID | Description | 2006 RTIP Completion Date |
| CALTRANS | 12570 | RTE. 57/60 HOV CONNECTOR INDUSTRY FROM OLD BREA CANYON ROAD TO GRAND AVENUE - HOV DIRECT CONNECTORS AND COLLECTOR ROAD (BOTH DIRECTIONS) (EA# 12570, PPNO# 0499Q) | 2007 |
| CALTRANS | LA996134 | RTE. 5/14 INTERCHANGE & HOV LNS ON RTE 14 - CONSTRUCT 2 ELEVATED LANES - HOV CONNECTOR (DIRECT CONNECTORS) (EA# 16800)(2001 CFP 8343) (PPNO 0168M) | 2010 |
| ORANGE COUNTY TRANS AUTHORITY (OCTA) | ORA000193 | SR-22/I-405 AND I-405/I-605 INTERCHANGES. DESIGN HOV TO HOV LANE CONNECTORS | 2015 |
| ORANGE, CITY OF | ORA990443 | SR-22 AND CITY DRIVE INTERCHANGE IMPROVEMENTS. RECONFIGURE FREEWAY INTERCHANGE AT SR-22 FROM SR-57 TO LEWIS STREET -- FROM 6/0 TO 6/2 LANES (ADDING 2 HOV LANES) | 2007 |
| RIVERSIDE COUNTY TRANS COMMISSION (RCTC) | RIV010212 | ON SR91 - ADAMS TO 60/215 IC: ADD HOV LNS, AUX LNS (MADISON-CENTRAL), BRIDGE WIDENING & REPLACEMENTS, EB/WB BRAIDED RAMPS, IC MOD/RECONSTRUCT + SOUND/RETAINING WALLS | 2013 |

Local Operational Air Quality Impacts

2. The lead agency did not conduct a localized air quality analysis or Health Risk Assessment (HRA) to determine how the construction or operation of the project may impact the residences, contrary to CARB, CAPCOA, and AQMD Guidance for projects that place sensitive receptors within close proximity of a freeway. According to the air quality analysis, over 1.5 million additional vehicles miles traveled per day will occur on this segment of the I-405 Freeway. Because of the project’s widening of the freeway, the emissions source will be located closer to adjacent residents. The lead agency did not analyze the potential impacts to all local ambient air quality standards from this activity, nor did it evaluate potential health risks. Localized high pollutant concentrations found in close proximity (e.g., 500 feet) of a freeway have been associated with a myriad of potential adverse health effects, including potential increases in cancer risk, increased rates of asthma, decreased lung function, and other adverse health outcomes (see Chapter 9 of the Draft 2012 AQMP for further details).

The lead agency relied on guidance from the Federal Highway Administration to quantify overall mobile source toxics emissions and determined that the project would result in a

overall decrease of MSATs, therefore, the project would have insignificant impact on sensitive receptors. Pollutant concentrations are a result of total emissions in addition to site-specific characteristics such as proximity to the source, meteorology, and topography. The Draft EIR is therefore insufficient for determining potential health risk impacts to sensitive receptors from the project and it ignores section 15064 of the CEQA Guidelines that requires *substantial evidence* to determine the significance of an impact. Furthermore, Caltrans has relied on an HRA for other CEQA documents including the Schuyler Heim Bridge project and the I-710 corridor expansion project. Therefore, AQMD staff recommends that the lead agency revise the air quality analysis to include a HRA for the proposed project. Further, the lead agency is strongly encouraged to, at a minimum, identify the total number of residences within 500 ft of the project's boundary (as measured from the outermost travel lane) in the existing condition and for each alternative. Even though some project alternative may have lower MSAT emissions, there may be a greater number of people exposed to these emissions.

Construction Emissions Analysis

3. The peak daily construction emissions presented in Table 3.2.6-8 of the Draft EIR demonstrates significant NOx emissions impacts from the project in comparison to AQMD regional thresholds; however, the lead agency determined that the proposed project will have insignificant impacts from construction related activities. Specifically, the lead agency concluded that the project's construction emissions would be less than significant as a result of the temporary (four and a half years) nature of the project's construction activity combined with the implementation of air quality measures AQ-1 through AQ-14. However, the lead agency did not quantify the effectiveness of the air quality measures or substantiate why its classification of temporary construction emissions are not subject to regional emissions significance thresholds. Therefore, AQMD staff recommends that the lead agency provide a revised air quality analysis that quantifies the effectiveness of the project's air quality measures (AQ-1 through AQ-14) and uses the AQMD's construction emissions thresholds to make a significance determination.¹

Further, given that construction activity for the project may result in a temporary increase of traffic congestion (as stated on page 3.2.6-28 of the Draft EIR) the AQMD staff recommends that the lead agency's revised analysis account for any emissions increase resulting from this congestion in the construction emissions analysis. Also, the lead agency's revised emissions analysis should reflect the most current version of RoadMod 7.1.1.

Climate Change Impacts

4. On page 4-57 of the Draft EIR, the lead agency states, "... it is CalTrans determination, that in the absence of regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination of the project's direct impact and its contribution on the cumulative scale to climate change," AQMD staff refers the lead agency to Section 15064.4(b)(2) of the CEQA Guidelines, that state, "whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project." AQMD staff therefore requests that the lead agency revise the project's

¹ <http://www.aqmd.gov/ceqa/hdbk.html>

greenhouse gas emissions analysis to include a determination of significance, and, if necessary, feasible mitigation measures.

CEQA Baseline

5. The lead agency used an incorrect CEQA baseline throughout the analysis to determine the significance of impacts. Pursuant to Section 15125 of the CEQA Guidelines, the existing environmental setting “at the time that environmental assessment commences . . . will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.” Instead of using this required methodology, the lead agency chose to compare a hypothetical and speculative future scenario without the project to one with the project to determine CEQA and NEPA impacts. This speculative approach is contrary to CEQA requirements and serves to underestimate potential impacts.

Growth Inducing Impacts

6. Page 2.2-3 of the Draft EIR Traffic Study states “For the I-405 Improvement Project a single demand forecast was prepared. Forecasts for each of the alternatives utilize the same total traffic volumes on a segment but redistribute volumes among the different lane types, as necessary.” However in Appendix A2 of the Traffic Study, each alternative is shown to have different total traffic volumes and VMT. The No-Build Alternative has the lowest volume, with progressively higher volumes for each alternative up to a maximum for Alternative 3. The lead agency should clarify how the future traffic volumes were determined and reconcile the above quoted text with the volumes presented in Appendix A2 and elsewhere in the CEQA document. For example, the current reported volumes indicate that alternatives with more widening have higher volumes. It would therefore appear that the project is inducing growth as the widened freeway would be a trip attractor. It is also not clear if the additional capacity allowed by Alternatives 2 and 3 are accounted for in the recently approved RTP/SCS. This additional capacity may have the possibility of inducing growth in the area that have additional impacts beyond those discussed in the Draft EIR. Any growth inducing impacts from potential project alternatives should be analyzed pursuant to CEQA Guidelines §15126 (d) prior to approving the Final EIR.

MSAT Analysis

7. The air quality analysis in the Draft EIR uses the CT-EMFAC tool to estimate potential toxic emissions from the proposed project alternatives. The worksheets from the year 2040 analysis are contained in the appendices to the Air Quality Technical Study. These worksheets use the following assumptions in Table 2 below to determine potential toxic emissions.

Table 2 MSAT Analysis Assumptions

| Alternative | VMT (peak hours) | VMT (off peak hours) | Total VMT | Peak Hour speed | Off Peak Hour Speed |
|---------------|------------------|----------------------|-----------|-----------------|---------------------|
| No Build | 1,357,853 | 1,555,211 | 2,913,064 | 5 | 65 |
| Alternative 1 | 1,357,853 | 1,555,211 | 2,913,064 | 15 | 65 |
| Alternative 2 | 1,357,853 | 1,555,211 | 2,913,064 | 40 | 65 |
| Alternative 3 | 1,357,853 | 1,555,211 | 2,913,064 | 50 | 65 |

It is unclear how the VMT assumptions in Table 2 above correspond to the VMT reported in Appendix A2 of the Draft EIR Traffic Study. In this appendix, the VMT ranges from a low of 4,618,000 for the No Build alternative to 5,631,000 for Alternative 3. The existing condition VMT from this appendix is listed as 4,063,000. The discrepancy between the VMT reported in the traffic study and the VMT used in the MSAT analysis should be revised in the Final EIR.

The assumptions regarding traffic speed for each alternative are simplified, and may not accurately reflect potential impacts from this project. For example, it is unclear if the Peak Hour Speeds listed in Table 2 above are consistent with the expected speeds from the traffic study for each section of the freeway. Because toxic emissions can have a highly localized impact, the calculation of toxic emissions budgets should be undertaken on a much finer scale and consistent with project links identified and analyzed in the traffic study. Speeds should be evaluated for each section and made consistent with the predicted traffic flow of that section.

Bottleneck at North End of Project

8. The proposed project includes a bottleneck at the north end of the project site at the junction with the I-605 freeway. For example, the freeway may go from up to 10 lanes in the project area down to 5 lanes in the adjacent existing freeway section in a very short distance. While the No Build Alternative includes a volume increase of only 15% at this section, Alternative 3 may increase volume by 38%, or 142,000 extra vehicles per day (Appendix A2, Draft EIR Traffic Study). The project area may have the capacity to handle this traffic volume, but it is not clear that the adjacent freeway section will be able to accommodate the same volume. With the increase in traffic volume that is induced and/or accommodated by this project, the lead agency should present an analysis of the potential regional and localized air quality impacts from the proposed bottlenecking at this location.

Increase in VMT

9. The proposed project may add up to 1.5 million miles of new vehicular travel along the project length. However there is little discussion of potential project alternatives that may instead reduce vehicular travel, and the potential emissions from these vehicles. This could include additional Bus Rapid Transit (BRT) lines, fixed guideway transit, and zero/near-zero emission technology alternatives. These alternatives are either not discussed or quickly dismissed in the alternatives analysis without the adequate discussion of their potential utility in serving the transportation needs of this region. The South Coast Air Basin needs to reduce NOx emissions by approximately two thirds above and beyond adopted regulations by 2023 in order to meet Ambient Air Quality Standards required by the Clean Air Act (see the Draft 2012 AQMP for further discussion of regional air quality issues). Because the majority of NOx emissions come from mobile sources, significant effort needs to be made for all transportation projects to ensure that they reduce emissions to the maximum extent feasible.

Conformity Analysis

10. Alternatives two (2) and three (3) of the proposed project are not currently programmed in the Regional Transportation Plan and if selected as the lead agency's preferred alternative would require a revised conformity analysis. Therefore, the AQMD staff requests that in the event that Alternative 2 or Alternative 3 are selected the lead agency clarify whether the project will demonstrate conformity consistent with EPA's updated quantitative Hot-Spot Analyses Guidance Document [Federal Register, FRL-9241-3]. The lead agency should disclose to the public any new information relative to the projects conformity analysis

Operational Emissions Analysis

11. AQMD staff requests that the lead agency update two aspects of its estimation of potential criteria pollutant emissions during operation of the project. First, the estimate of VMT on segments of the project does not appear to match estimates from the Draft EIR traffic study. For example, in Appendix D of the Air Quality Technical Study in the Draft EIR, the SR-73 to Brookhurst section includes a total of 1,029,979 miles of daily vehicle travel. However Appendix A2 of the Traffic Study Appendix in the Draft EIR shows a total of 1,053,000 daily VMT for this section. The total VMT for all sections of the project should be reviewed and updated as necessary to ensure the traffic study matches the air quality study. Second, the analysis uses EMFAC 2007 to estimate emissions for future years. The state Air Resources Board has released the updated EMFAC 2011 that updates vehicle emission factors. The Final EIR should present an estimate of operational emissions using these updated emissions factors.