



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

June 13, 2016

Aaron Burton  
Branch Chief  
Caltrans District 8  
Attn: I-10 CP Draft EIS Comment Period  
464 West 4th Street  
San Bernardino, CA 92401

Subject: EPA Comments on the Draft Environmental Impact Statement for the I-10 Corridor Project,  
San Bernardino County, California (CEQ # 20160086)

Dear Mr. Burton:

The US Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. Our detailed comments are enclosed. We appreciate the early interagency coordination regarding air quality methodology and the additional information provided to our agency in advance of publication of the Draft Environmental Impact Statement (EIS).

EPA has rated both build alternatives (Alternative 2 (One High-Occupancy Vehicle Lane in Each Direction) and Alternative 3 (Two Express Lanes in Each Direction)) as EC-2, Environmental Concerns, Insufficient Information. Please see the enclosed Summary of EPA Rating Definitions for a description of EPA ratings. Our concerns are based on potential impacts from diverting truck traffic from I-10 to State Route 60 and other corridors, and potential air quality impacts from the proposed project. EPA also recommends additional information be provided in the Final EIS regarding the project's health effects and environmental justice impacts.

We appreciate the opportunity to review this Draft EIS. Please contact EPA to discuss the enclosed detailed comments. When the Final EIS is released for public review, please send one hard copy and one electronic copy to the address above (mail code: ENF-4-2). If you have any questions, please contact Debbie Lowe Liang, the lead reviewer for this project, at 415-947-4155 or [lowe.debbie@epa.gov](mailto:lowe.debbie@epa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Connell Dunning".

Connell Dunning  
Transportation Team Supervisor  
Environmental Review Section

Enclosures:  
Summary of EPA Rating Definitions  
EPA's Detailed Comments

cc via email: Brenda Powell-Jones, Caltrans  
John Chisholm, Caltrans  
Jillian Wong, SCAQMD  
Chad Costello, SANBAG  
Courtney Aguirre, SCAG  
Shawn Oliver, FHWA

## **SUMMARY OF EPA RATING DEFINITIONS\***

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

### **ENVIRONMENTAL IMPACT OF THE ACTION**

#### ***"LO" (Lack of Objections)***

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### ***"EC" (Environmental Concerns)***

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### ***"EO" (Environmental Objections)***

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### ***"EU" (Environmentally Unsatisfactory)***

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

### **ADEQUACY OF THE IMPACT STATEMENT**

#### ***"Category 1" (Adequate)***

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### ***"Category 2" (Insufficient Information)***

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### ***"Category 3" (Inadequate)***

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

### **Impacts from Diverted Traffic to State Route 60**

The Draft Environmental Impact Statement (EIS) identifies that truck traffic will be diverted to State Route (SR) 60, and concludes that the increased capacity provided by adding lanes to I-10 will therefore not consist of an increase in truck traffic along I-10. The document also discusses local emission reductions due to the diversion of trucks to other traffic corridors, including SR-60. However, the impacts of the diversion of increased trucks to SR-60 and other corridors, and the locations of those impacts are not fully discussed. While page 3.2.36 of the Draft EIS states that diversion of heavy and medium trucks from I-10 to SR-60 would represent less than 1% of the SR-60 traffic volumes, additional information is warranted to better understand the possible health and environmental impacts that residents may experience from increased truck volumes. Specifically, because the diverted traffic includes heavy and medium duty trucks, the Final EIS should assess and disclose re-entrained dust impacts which are a function of vehicle weight emissions, and would therefore be expected to be higher for heavy and medium duty trucks.

#### ***Recommendations:***

- The Final EIS should provide additional analysis and discussion of the impacts anticipated from the diverted traffic to SR-60 and other corridors. Please include the following information for disclosure and to assist in analyzing impacts:
  - The estimated total number of heavy and medium duty trucks diverted;
  - The percentage of total heavy duty trucks diverted compared to existing heavy duty trucks on SR-60;
  - The percentage of medium duty trucks diverted compared to existing medium duty trucks on SR-60.
- Describe any increases in re-entrained dust impacts where trucks are being diverted.
- Describe what environmental and health impacts this additional traffic will have to the areas adjacent to the SR-60 and other affected corridors (noise, increased traffic, impacts to schools, etc.) and include additional mitigation measures if warranted.

### **Air Quality**

#### **Carbon Monoxide Hot-Spots Analysis**

The carbon monoxide (CO) analysis performed for this project seems to incorrectly reference sections of the Caltrans's 1997 Transportation Project-Level Carbon Monoxide Protocol and the qualitative screening analysis completed for the project doesn't clearly demonstrate that the project does not result in a CO Hot-Spot. The approach taken in the analysis is to compare some components of one intersection impacted by the project to an intersection identified as the Wilshire Boulevard and Veteran Avenue from the South Coast Air Quality Management District (SCAQMD) 2003 Air Quality Mitigation Plan Appendix V attainment demonstration. However, it is not explained why the intersection of Cedar Avenue and San Bernardino Avenue was picked for this comparison as it doesn't have higher volumes than the I-10 freeway and it not clear if it has higher congestion than any other intersections in the project area.

#### ***Recommendation:***

- Given that the I-10 project is large transportation project, significantly different than the intersection analyzed in the maintenance plan, EPA recommends revising the analysis of CO

hot-spots to use the “worst case” portion of the project, typically highest VMT and highest congestion, locations. Please contact EPA for further coordination regarding this analysis.

### **Information Regarding Federal Standards and Conformity Determinations**

The nonattainment area classification is incorrectly referenced on page 3.2.6-24 and the description of existing air quality data on page 3.2.6.9 is incomplete. Please update the Final EIS to reflect the following information.

#### ***Recommendation:***

- Please correct the tables and discussion on this section in the Final EIS to reflect the following.
  - The South Coast air basin is moderate for the annual 2012 PM<sub>2.5</sub> standard, however is serious area for the 2006 24-hr standard.
  - Table 3.2.6-2 correctly includes the 2015 ozone standard (0.070 ppm), however EPA has not yet designated any areas for that standard yet. The South Coast air basin is currently nonattainment, with an extreme classification for the 2006 ozone standard. In addition, while the table correctly lists both the annual and the 24-hour standards, the table only reflects the classification for the 2012 annual standard.
  - The South Coast nonattainment area is classified Serious for the 2006 24-hour PM<sub>2.5</sub> standard.
  - Please include a description of the existing air quality for the applicable 8-hour ozone NAAQS and the 24-hour PM<sub>2.5</sub> NAAQS in the Final EIS.
  - Please add the 2006 24-hour PM<sub>2.5</sub> standard (35 µg/m<sup>3</sup>) and the 2015 8-hour ozone standard (0.070 ppm) to Table 3.2.6-1 in the Final EIS.

The language at the beginning of the paragraph describing the status of different alternatives in the conforming RTP/TIP on page 3.2.6-29 is confusing. The sentence at the beginning of the paragraph seems to indicate that both alternatives are in the regional RTP/TIP. However, as stated later in the paragraph, only Alternative 2’s “design concept and scope of Alternative 2 is consistent with the project description in the 2012-2035 RTP/SCS, 2015 FTIP, and the open to traffic assumptions of the SCAG regional emissions analysis.”

#### ***Recommendation:***

- Please update the references to the current RTP/TIP and confirm the proposed project is within a conforming plan.

The document clearly states on 3.2.6-35 that the diversion of trucks to other highways reduced the number of trucks within the project limits and therefore, the build alternatives were determined to not be a Project of Air Quality Concern (POAQC) per the requirements of project-level transportation conformity analyses. While the Draft EIS explains the history of coordination with Transportation Conformity Working Group (TCWG) regarding this determination, the conclusion is incorrect. The TCWG did not “approve the PM hot-spot analysis on February 23, 2016”, but instead changed their prior determination, and confirmed that, based on the additional information provided, the project is not a POAQC for purposes of analysis of project-level transportation conformity analysis. Therefore further conformity hot-spot analysis are not required.

#### ***Recommendation:***

- In the Final EIS, replace the statement “The TCWG approved the PM hot-spot analysis on February 23, 2016” with the statement, “On February 23, 2016, the TCWG confirmed that,

based on the additional information provided, the project is not a POAQC for purposes of analysis of project-level transportation conformity analysis.”

## **Health Effects**

### **MSAT Risk Assessment**

EPA continues to disagree with the characterization of MSAT research on pages 3.2.6-42 – 3.2.6-45. EPA believes that current risk assessment techniques are very useful for decision making purposes. On pages 3.2.6-48 – 3.2.6-49, the Draft EIS cites the risk assessment work SCAQMD has conducted in their MATES IV study quantifying the cancer risk associated with diesel PM emissions in the Southern California Air Basin. The methods used by SCAQMD, which can be repeated, could also be included in Caltrans NEPA analyses.

#### ***Recommendation:***

- EPA encourages further coordination between our agency, Caltrans, and Federal Highway Administration (FHWA) to discuss how to use existing and emerging MSAT research, techniques and tools to best support decision making in NEPA documents.

On Pages 3.2.6-20 – 3.2.6-22 of the Draft EIS for this project, the health effect descriptions for the various pollutants are incomplete and not up-to-date. For example, there is no mention of the mortality risks from exposure to ozone and PM. The health effects descriptions in the Air Quality appendix, however, are a better summarization. In addition, the Draft EIS lacks a discussion of recent studies which show the linkages between living near freeways and health impacts. One example document that did include such an analysis is the Southern California Association of Governments (SCAG) 2016-2040 Draft Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the associated Draft Program Environmental Impact Report (PEIR). The SCAG PEIR cites specific studies which have shown long-term particle pollution exposure increases hospitalization of children with asthma living near busy roads with heavy truck traffic, reduces lung function in children and teenagers, damages small airways of the lungs, increases risk of death from cardiovascular disease, and increases risk of lower birth weight and infant mortality.

#### ***Recommendation:***

- In the Final EIS, EPA recommends that the pollutant descriptions in the Air Quality appendix be presented in the main text of Chapter 3. Alternatively, EPA recommends using the mobile source pollutant health effects descriptions that can be found in the Regulatory Impact Analysis for the Tier 3 Motor Vehicle Emission and Fuel Standards Final Rule (see Section 6.1 - <https://www3.epa.gov/otaq/documents/tier3/420r14005.pdf>).
- Include in the Final EIS a summary of recent studies on the health impacts of living near freeways. Consider referencing the information presented in the SCAG RTP/SCS and PEIR.

### **Sensitive Receptors**

Figures 3.2.6-3 through 3.2.6-11 (and the corresponding figures in the Air Quality appendix) combine all sensitive receptors in yellow. The disclosure of this information would be more beneficial to the determination of potential design changes or commitment to specific sector-specific mitigation measures if these figures delineated different types of sensitive receptors. For example, it would be helpful to separately identify schools, parks and hospitals.

#### ***Recommendation:***

- EPA recommends modifying Figures 3.2.6-3 through 3.2.6-11 in the Final EIS to delineate different specific sensitive receptors with different colors. See Figure 3.1.4-3 in the

Community Facilities and Services section as an example that delineates schools, parks, and hospitals.

### **Children's Environmental Health**

Executive Order 13045 on Children's Health and Safety directs each Federal agency, to the extent permitted by law, to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects under NEPA is necessary because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to environmental health and safety risks. Although the Draft EIS identifies communities, public schools, parks, libraries, and hospitals located near the proposed project area, the Draft EIS does not clearly describe the potential direct, indirect, and cumulative impacts of the project on children's health. Further, because children spend an average of 35% of their time at schools, EPA recommends consideration of school-related mitigation measures, in addition to other mitigation measures that may reduce impacts to children.

#### ***Recommendations:***

- Include in the Final EIS a discussion of the potential direct, indirect, and cumulative project impacts on children's health. Please consider the following for this discussion:
  - Information on childhood asthma rates and other relevant health data if available (note that SCAG included asthma data in the PEIR);
  - Potential respiratory impacts, including asthma, from construction activities and increased traffic flow;
  - Potential noise impacts to health and learning, especially near schools, homes, and childcare centers.
- EPA recommends that Caltrans commit to a mitigation to engage schools most impacted by the build alternatives in outreach around EPA's *Best Practices for Reducing Near-Roadway Exposure at Schools* guidance document<sup>1</sup> and the *Tools for Schools* Indoor Air Quality program<sup>2</sup>. The recommendations for schools seeking to reduce student's exposure could be tiered to fit budgets of varying sizes.
  - Revise Figures 3.1.4-3 Community Facilities and Services to include additional sensitive receptors, such as private schools, charter schools, preschools, community centers and childcare centers.
  - As part of this mitigation measure, EPA recommends Caltrans prioritize outreach on reducing exposure to schools most affected by the project. Factors to consider in prioritization include whether a school is within 500ft of the roadway expansion, whether sound walls or vegetative barriers are present, ability of the school's HVAC system to filter out pollutants and the number of students on free or reduced lunch. The installation of high performance air filtration systems in classrooms has been shown to reduce concentrations of black carbon and PM<sub>2.5</sub> by up to 96%<sup>3</sup>. This mitigation measure should be shared with schools concerned about near-roadway pollution impacts.
  - Consider the potential for trees to reduce near-roadway air pollution when selecting trees for mitigation or replacement and include that commitment in the Final EIS. EPA's *Best Practices for Reducing Near-Road Pollution Exposure at Schools* provides some initial guidance on choosing vegetation to maximize reduction of near-roadway air pollution,

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<sup>1</sup> <https://www.epa.gov/schools/best-practices-reducing-near-road-air-pollution-exposure-schools>

<sup>2</sup> <https://www.epa.gov/iaq-schools>

<sup>3</sup> Polidori, A. (2013) Pilot study of high-performance air filtration for classroom applications, *Indoor Air*; 23: 185-195.

and EPA would be happy to engage in discussions with Caltrans staff to provide additional guidance on this topic.

## **Environmental Justice**

The Draft EIS lacks a clear discussion of the reference community. As described in multiple guidances for the analysis of environmental justice (EJ) impacts, including the US Department of Transportation (DOT) and FHWA *Guidance on Environmental Justice in NEPA*<sup>4</sup>, the EJ analysis should “provide demographic information on the general population in the project study area.” Further, as stated in the FHWA *EJ Reference Guide* “The geographic boundaries for analysis will need to vary depending upon the nature of the proposed action or plan. Practitioners should establish the study area boundaries carefully so as not to artificially distort the representation of minority and low-income individuals in the affected population.” The recently published *Promising Practices for EJ Methodologies in NEPA Reviews* (March 2016) also provides additional suggestions on the use of a reference community in an EJ analysis: “A reference community’s total number of minority individuals and percent minority can be compared to the population in the affected environment or geographic unit of analysis.”

*Promising Practices for EJ Methodologies in NEPA Reviews* also provides suggestions on how to determine whether the low-income and minority populations in the affected community are meaningfully greater than the reference community: “The *Meaningfully Greater* analysis requires use of a reasonable, subjective threshold (e.g., ten or twenty percent greater than the reference community). What constitutes ‘meaningfully greater’ varies by agency, with some agencies considering any percentage in the selected geographic unit of analysis that is greater than the percentage in the appropriate reference community to qualify as being meaningfully greater.” Table 3.1.4-6 Environmental Justice and Figures 3.1.4-5 through 3.1.4-12 would be more useful if they highlighted the areas that are meaningfully greater than the reference community. Potential impacts such as noise, near-roadway pollution, and acquisitions could then be overlaid on the maps to determine whether the areas most impacted along I-10 and SR-60 are in low-income or minority communities.

### ***Recommendations:***

- Revise the EJ analysis to define the reference community, and include tables and maps which show the locations where the minority and low-income populations are meaningfully greater than the reference community.
- Consider using census block group data instead of census tract level. Census block data provides the census data for a smaller geographic scale, which is important for EJ analyses for freeway projects where understanding localized impacts is important.
- Consider using American Community Survey (ACS) data instead of decadal census information (2000, 2010). ACS is updated annually and provided as 5 year running averages for census block groups. The ACS information is readily available for viewing and download from US EPA’s EJSCREEN website or the US Census, and is discussed in the Federal Highway Administration (FHWA) EJ Reference Guide as appropriate for EJ analyses.

### **Acquisitions Impacts**

The EJ analysis discusses residential acquisitions, but does not discuss the businesses acquisitions and the potential impacts of these business acquisitions on nearby low-income and minority communities.

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<sup>4</sup>[https://www.environment.fhwa.dot.gov/projdev/guidance\\_ej\\_nepa.asp](https://www.environment.fhwa.dot.gov/projdev/guidance_ej_nepa.asp)

With regards to residential acquisitions, page 3.1.4-83 states “The proposed project would result in a large number of residential acquisitions in Fontana, and although there are a higher percentage of environmental justice residents, the highest percentage within the study area does not reside in Fontana. No minority or low-income populations that would be adversely affected by Alternative 3 have been identified as determined above; therefore, this project is not subject to the provisions of EO 12898.” This analysis is inconsistent with the guidance discussed above regarding reference communities and whether the low-income and minority populations are meaningfully greater than the reference community.

***Recommendation***

- As discussed above, the EJ analysis should clearly define a reference community. Further, this analysis should examine the locations of the residential and business acquisitions and whether the low-income and minority populations affected by the acquisitions are meaningfully greater than the reference community.
- Discuss the business acquisitions, whether these businesses employ or serve low-income or minority communities, and whether the acquisitions of these businesses will result in a disproportionately high and adverse impact to low-income or minority populations.
- If EJ impacts are identified in this analysis, then the Final EIS should include mitigation measures to minimize the EJ impacts.

**Near-Roadway Health Impacts**

As discussed above, the Draft EIS lacks a discussion of the health impacts associated with living near freeways. In addition to providing that information in the Air Quality section, the EJ analysis lacks a discussion about whether the near-roadway health impacts from the project alternatives are disproportionately high and adverse for low-income and minority communities. EPA recommends that Caltrans coordinate with SCAG to include their recently completed EJ analysis<sup>5</sup> in a revised environmental justice analysis for this project, and highlight and implement applicable “tools” from their Environmental Justice Toolbox, including conducting corridor-level near-roadways analysis for proposed projects in areas where air quality impacts may be concentrated among environmental justice communities and working in consultation with the affected community to develop mitigation measures to address the project’s impacts.

***Recommendation:***

- Include a discussion about whether the near-roadway health impacts from the project alternatives are disproportionately high and adverse for low-income and minority communities
- Consider coordinating with SCAG to incorporate applicable “tools” from the SCAG Environmental Justice Toolkit. Specifically, a corridor-level near-roadway EJ analysis for this project, and working with the affected community to develop mitigation measures to address the project’s impacts, would assist in disclosure, analysis, and mitigation of potential effects.

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<sup>5</sup> The *Environmental Justice Appendix* to the Southern California Association of Government (SCAG) *Regional Transportation Plan/Sustainable Communities Strategy 2016-2040* evaluated emission impacts along freeways and highly traveled corridors. SCAG prepared analyses to highlight the emissions exposure in areas within 500 feet of freeways and high volume roads and found most environmental justice population groups show higher concentrations in the freeway-adjacent areas than is seen in the greater region, with some exceptions.

## **Noise Impacts**

The EJ analysis in the Draft EIS does not specifically address noise. The FHWA *EJ Reference Guide* lists noise as one of the potential burdens of transportation projects on EJ populations and EPA recommends this be addressed in the Final EIS. In the Noise section, the Draft EIS discusses the locations of receptors that would experience noise impacts due to the project alternatives. It also discusses which locations were considered for noise abatement, and where noise barriers are considered reasonable and feasible, according to characteristics of the sites and cost considerations. We note that many of the noise barrier locations considered feasible were not found to be reasonable based on cost considerations. EPA encourages the consideration of noise barriers and other mitigation of noise impacts in areas of sensitive receptors, and in particular in areas of sensitive receptors located in environmental justice communities. The Cumulative Impact section discusses projects that have the potential to contribute to cumulative noise impacts. Again, we encourage mitigation of noise impacts in particular in areas that would experience cumulative noise impacts from this project and other projects.

### ***Recommendations:***

- EPA recommends that the EJ analysis in the Final EIS examine noise as a potential impact to environmental justice communities, and include maps showing areas that will experience noise impacts overlaid on maps of areas where the low-income and minority populations are meaningfully greater than the reference population.
- The noise/EJ maps in the Final EIS should be used to support an analysis about whether noise impacts are disproportionately high and adverse for low-income and minority communities.
- EPA recommends that Caltrans include noise barriers and other mitigation of noise impacts in areas of sensitive receptors, and in particular in areas of sensitive receptors located in environmental justice communities or in areas that would experience cumulative noise impacts. We encourage mitigation of both permanent impacts from operation of the project alternative, and temporary impacts from construction.

## **Climate Change**

Caltrans included a climate change analysis in the California Environmental Quality Act (CEQA) chapter of the Draft EIS, but it is not included in the NEPA analysis. Page 3.2.6-57 states “Neither EPA nor FHWA has issued explicit guidance or methods to conduct project-level GHG analysis.” Even without explicit guidance from EPA or FHWA, the inclusion of a climate change analysis for CEQA provides an opportunity for that information to be included as a part of the NEPA analysis to help inform the decision. We encourage Caltrans to include this information as a part of the NEPA review and the Executive Summary so it is easily accessible to both the public and decision makers.

We support Caltrans’ efforts to reduce energy consumption and GHG (greenhouse gas) emissions. As Caltrans continues to assess the risks to transportation facilities from climate change effects, we encourage Caltrans to further refine the design standards of this project to mitigate any effects.

### ***Recommendations:***

- EPA encourages Caltrans to include the Climate Change information that is presented in the CEQA chapter as a part of the NEPA section and the Executive Summary. Specifically, EPA recommends that the analysis of climate change impacts not be excluded from the NEPA section because that information is available within the document and can be presented within the NEPA section to help decisionmaking. EPA recommends that the Executive Summary include estimates of the GHG emissions for operations and construction for each

of the alternatives and the five project-specific GHG reduction measures on page 4-97 and 4-99.

- EPA encourages Caltrans to continue to further refine the design standards of this project to mitigate climate change effects.

The Climate Change analysis in the CEQA chapter quantifies GHG emissions for each of the project alternatives for construction and operations. Page 4-89 of Chapter 4, Table 4-9 lists Estimated 2025 Annual Carbon Dioxide Emissions and Table 4-10 lists Estimated 2045 Annual Carbon Dioxide Emissions. Page 4-89 and page 4-90 state: “Between the two build alternatives, Alternative 2 would generate less GHG emissions than Alternative 3. Compared to the existing conditions, Alternatives 2 and 3 would increase the GHG emissions by 12 and 23 percent in 2025 and by 38 and 48 percent in 2045, respectively... [For Construction] Alternative 2 would generate 5,504 metric tons per year and 19,265 total metric tons over the 42-month schedule. Alternative 3 would generate 5,711 metric tons per year and 28,557 total metric tons over the 60-month schedule. Between the two build alternatives, Alternative 2 would generate less GHG construction emissions than Alternative 3.” However, this detailed information about carbon dioxide emissions is not included in the CEQA conclusion on page 4-95 which states “Therefore, it is Caltrans’ determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project’s direct impact and its contribution on the cumulative scale to climate change.”

***Recommendation:***

- EPA recommends that the conclusion of the Climate Change analysis identify estimates of the GHG emissions already provided in the document to distinguish between the alternatives being considered in this decision. EPA recommends revising the language on pages 4-2 and 4-95 that states that it is too speculative to make a determination regarding significance of the project’s direct impact and its contribution on the cumulative scale to climate change. Rather, EPA recommends that Caltrans disclose the GHG emissions that would result and provide that information along with context of what the project’s emissions are in relation to other projects within the transportation sector and how emissions have been, and will continue to be, reduced through design and planning.

Table 4-13 Climate Change/CO<sub>2</sub> Reduction Strategies lists Estimated CO<sub>2</sub> Savings for 2010 and 2020. It is unclear why these dates were chosen when the Annual CO<sub>2</sub> Emissions are estimated for 2025 and 2045. Page 4-100 discusses the National Academy of Science Sea Level Rise Assessment Report. The US National Climate Assessment may also serve as a useful resource document in planning for adaptation strategies and the Council on Environmental Quality released revised climate change analysis guidance in 2014.

***Recommendations:***

- EPA recommends updating the Estimated CO<sub>2</sub> Savings numbers in Table 4-13 for years 2025 and 2045 or adding an explanation of why years 2010 and 2020 were used.
- EPA recommends Caltrans consider the US National Climate Assessment<sup>6</sup> and Revised Draft Guidance for Greenhouse Gas Emissions and Climate Change Impacts<sup>7</sup>.

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<sup>6</sup> Available at: <http://nca2014.globalchange.gov/downloads>

<sup>7</sup> Available at: <https://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance>