



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
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March 9, 2012

Ronald Kosinski, Deputy District Director
Division of Environmental Planning
California Department of Transportation – District 7
100 South Main Street, Suite 100
Los Angeles, CA 90012

Subject: Comments on the Administrative Draft Environmental Impact Statement (ADEIS) for the Interstate 710 Corridor Project from Ocean Boulevard in the City of Long Beach to State Route 60 in Los Angeles County, California

Dear Mr. Kosinski:

Thank you for the opportunity to review the Administrative Draft Environmental Impact Statement for the proposed Interstate 710 (I-710) Corridor Project (Project) from Ocean Boulevard in the City of Long Beach to State Route 60 (SR-60) in Los Angeles County, California.

For this project, EPA is a Participating Agency pursuant to SAFETEA-LU, a Cooperating Agency pursuant to NEPA, and was a member of the Air Agency Technical Working Group (AATWG). EPA's participation as a Participating and Cooperating Agency does not constitute formal or informal approval of any part of this project under any statute administered by EPA, nor does it limit in any way EPA's independent review of the Draft and Final EISs pursuant to Section 309 of the Clean Air Act. We understand that Caltrans has assumed responsibilities under NEPA for this project pursuant to the *Memorandum of Understanding Between the Federal Highway Administration (FHWA) and Caltrans Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*.

Our comments on the ADEIS reflect our review of the document as well as comments and recommendations provided over the last 4 years of our coordination on this project, including letters covering the following subject matter (date noted): Scoping (September 26, 2008); Air Quality and Health Technical Report Methodology (February 5, 2009); Purpose and Need (October 2009); Children's Health, Environmental Justice, Health and Air Quality (August 2010); and Restating EPA Concerns with Project (March 2011). In addition to the feedback provided below, our agency may have additional comments, on these and other subject matters, once the Draft EIS is available for Public Review.

A number of EPA's attached detailed comments address assumptions, methodologies, and conclusions presented in the ADEIS. These include deficiencies that we have identified (along with specific recommendations to address those deficiencies) to be addressed prior to circulation. We recommend revising the ADEIS so that it addresses the feedback that we have provided.

This project will result in a high level of community-wide impacts, in an area that is already heavily burdened from poor air quality related to the goods movement sector. Because of the anticipated impacts from this project in this setting, it is critical that the EIS include a robust analysis of the air quality, environmental justice, and children's health impacts that will result. In addition, through our attached comments, we recommend that the EIS more fully describe and analyze the complete picture of goods movement-related projects in the area and include an updated cumulative impacts analysis that can lead to meaningful and effective measures to reduce the cumulative burden of impacts to the region.

The Department of Transportation is signatory to the August 4, 2011 Memorandum of Understanding (MOU) on Environmental Justice and Executive Order 12898. In addition to reinforcing the Federal government's commitment to environmental justice, the MOU directly targets actions such as the I-710 Corridor project through its focus on goods movement, NEPA, and Title VI. In light of this renewed commitment and focus, we recommend that Caltrans, in its role serving as the NEPA lead per the NEPA delegation from US DOT, carefully consider both changes to alternatives and adoption of mitigation measures proposed, to avoid or further mitigate the project's disproportionately high and adverse impacts and increased health risks. In addition, further efforts (as described in our detailed comments) to assess and reduce potential adverse and disproportionate impacts to nearby overburdened communities will assist Caltrans, as recipients of Federal funds, to meet obligations under Title VI of the Civil Rights Act.

Thank you again for this opportunity to comment on the ADEIS for the I-710 Corridor Project. In our continuing role as cooperating agency for this project, we would like to set up a conference call to discuss the recommended revisions to the ADEIS. Please call me at your earliest convenience to organize a call. If you have any questions, please feel free to contact me at 415-947-4161.

Sincerely,



Connell Dunning
Communities and Ecosystems Division

Enclosures: EPA's Detailed Comments

CC: Garrett Damrath, Caltrans
Dale Jones, Caltrans
Jay Norvell, Caltrans
Bob Pavlik, Caltrans
Vince Mammano, FHWA

Organization of the ADEIS

A fundamental requirement of an Environmental Impact Statement is for the document to provide, in an accessible format for the public and decisionmakers, a clear depiction and disclosure of impacts. As currently organized, the document provides a complicated mix of conclusions with little supporting analysis within the body of the ADEIS. While CEQ Regulations allow for "incorporation by reference", this is recommended only if doing so does not impede upon agency and public review of the action. A large portion of the ADEIS offers too brief and unsubstantiated conclusions without supporting visual aides and an understanding of the analyses that led to the decision. For example, the reader is directed to a technical report, not included in the body or appendices of the ADEIS, to see a map that is vital to understanding how biological resources were assessed. In this particular example, Page 3.16-2 states that the Biological Study Area for Natural Communities encompasses approximately 2000 acres and then refers the reader to an appendix (Appendix H) of a Technical Report (Natural Environment Study), which is not in the ADEIS Appendices. Rather than requiring the reader to search a Technical Report, a map should be provided in Section 3.16. Again, the reader is referred to the same Appendix for an illustration of the various vegetative communities. This visual is integral to the discussion and should not be relegated to a separate document, but rather should be provided in an easily accessible figure for the reader.

This is repeated throughout the document, at times referring the reader to as many as 3 separate Technical Appendices in order to determine basic information about the documents conclusions within a specific resource area.

Recommendations:

- Revise the document to include visual aides within the body of the resource analysis sections of the DEIS rather than requiring the reader to access separate Technical Reports that are not included in the Appendices.
- Supplement the current list of DEIS Appendices to include additional Technical Reports that are critical to supporting conclusions in the DEIS, so that they are reasonably available for inspection by potentially interested persons within the time allowed for comment (40 CFR Part 1502.21).
- Please refer to CEQ Twenty Questions # 25b, "How does an appendix differ from incorporation by reference?" CEQ states that "The Appendix should contain information that the reviewers will be likely to want to examine. It should include material that pertains to the preparation of a particular EIS. Research papers directly relevant to the proposal, lists of affected species, discussion of the methodology of models used in the analysis of impacts...would be placed in the appendix."

Need for the Project – Traffic Demand and Freeway Capacity

The ADEIS states that there are no planned improvements that will address project future traffic demand (Page 1-7). This section states that traffic demand is anticipated to increase between 2008 and 2035. The DEIS assumptions regarding the actual freight volumes anticipated are integral to demonstrating the Need for the project. Following our review, EPA has questions regarding baseline freight volumes

proposed and therefore questions the underlying supporting information justifying the Need for the additional proposed lanes.

Recommendations:

- Confirm that traffic demand estimates evaluated in 2008 are still valid when taking into consideration changes in the economy and goods movement that have occurred over the last 4 years, as stated on Page 1-12. Do traffic demand estimates factored now in 2012 still result in values predicted 4 years ago?
- The DEIS notes that for purposes of the environmental analysis, the SCIG project was not included as an assumed project. The SCIG project, should it advance, would affect truck traffic volumes on I-710, potentially reducing volumes due to movement of cargo via near-dock rail instead of along 710. Does the same need for the project still exist when considering other, inter-related projects such as SCIG are advanced? Page 1-16 references this question and cites the Goods Movement Study completed in February 2009, but the ADEIS does not go far enough in justifying that baseline assumptions that TEU throughput will increase from 13 million to 42.7 million TEUs by 2035 and that this throughput will be transported on 710 (versus other highway, arterial roads, and rail.) Update the DEIS to more fully explain the complete picture in the 710 area – arterials, highways, rail, on/near dock rail improvements – to better support the stated need.

Section 3.2, Growth Section, includes a graph (Figure 3.2-1) depicting the number of lanes needed at different locations based on a high Port growth scenario (with SCIG), a high Port growth scenario (without SCIG), and a low Port growth scenario. The graph depicts the same number of lanes needed to meet all three growth scenarios if both trucks and autos are “rounded” to meet the configuration of lane throughput. This graph is confusing and obfuscates true differences in auto and truck traffic volumes that are presented on Page 3.2-10. By “rounding” to meet what lanes can accommodate, the analysis misses an opportunity to provide estimates of demand matched with potential solutions, only one of which is adding highway lanes. Specifically, Section 3.2 concludes that

Specifically, as presented, the need for three lanes in all scenarios is not supported and we recommend that the EIS be revised to provide additional supporting information as well as additional growth solutions that would include 2 lanes instead of 3.

Recommendations:

- Update Figure 3.2-1 to provide the quantity of estimated differences in demand for both trucks and autos anticipated under all scenarios. Highlight the assumption used for quantifying what demand can be accommodated by one lane and more fully explain other options to accommodate additional demand.
- Provide a discussion to explain what the remaining truck and auto demand (separately quantified) would be if the demand is assigned to lanes and values are not “rounded”, but rather the remaining need could be accommodated in an alternate way instead of with a third lane. How might that demand be met in a two-lane scenario if demand is not assumed to be all on I-710 due to fewer lane miles available in a two-lane scenario? What additional demand may be met by arterials, other highways, and rail?

- Page 3.2-19 states, "... the increase in capacity on I-710 under the I-710 Build Alternatives is not expected to influence demand for growth at the Ports nor would growth of port cargo handling capacity at the Ports substantially increase travel demand on I-710". Neither conclusion is supported in the ADEIS. If this analysis occurred elsewhere, in a separate Technical Appendix, this information needs to be brought forward into the ADEIS.

Alternatives Analysis

As highlighted in our September 26, 2008 scoping comments, and our February 2009 follow-up comments, the EIS will need to explore and objectively evaluate a range of reasonable alternatives, including the no action alternative, and briefly discuss the reasons for eliminating some alternatives from further evaluation (40 CFR 1502.14). The ADEIS should more fully explain the multimodal solutions that are available to meet the demand identified, even if the solutions are not within the jurisdiction of Caltrans, so that the decisionmaker can fully understand the goods movement network surrounding the I-710. Further, while we recognize that the No Action Alternative should assume some percentage of demand not being realized per the lack of additional lane-miles available for moving cars and trucks, it is not clear how the assumption of traffic estimates was arrived at for the No Action Alternative. If a high estimate of trucks and autos are assumed to exist with the No Action, it could artificially inflate the benefit of the Action Alternatives.

Recommendations:

- The DEIS should fully justify the elimination of any alternatives that would result in fewer environmental impacts than the locally preferred alternative(s) and should clearly explain why certain alternatives are not fully analyzed, including a description of the criteria used to eliminate potential alternatives from further study.
- In our previous comments, we recommended that the alternatives ultimately evaluated in the EIS should not be limited so as to preclude a reasonable range of alternatives from being evaluated in the future. While we appreciate the alternatives analyzed, we recommend that Chapter 2 more fully describe how enhancing transit access, the evaluation of rail alternatives for passengers and freight and implementing a comprehensive Transportation System Management and Transportation Demand (TSM/TDM) plan are incorporated into alternatives.
- Describe the assumptions and methodology used to arrive at the estimated traffic numbers (trucks and cars) for the No Action Alternative and confirm that values presented in the ADEIS reflect diversion of trips to other routes as congestion increases (versus assuming all traffic will remain on 710). Revise the No Action Alternative traffic estimates if needed and adjust the estimated benefits achieved by the Action Alternatives.

Project Description

From prior documents, such as the I-710 EIS/EIR LA River Impact Report, we understand that extended sections of the freight-only lanes in alternative 6A, 6B and 6C will be elevated. While this is somewhat confirmed in the discussion of the project's visual impacts for those alternatives, which notes sections of the freight corridor will be elevated 40 feet above the I-710 mainline (for example p. 3.6-93), the Executive Summary and Alternatives Section, 2, does not clarify this.

Recommendations:

- We recommend the DEIS include design, or conceptual drawings that show the elevated freight lanes relative to the I-710 mainline, for Alternatives 6A, 6B and 6C.

Air Quality / Health Risk Assessments

Given the large, existing air quality impacts from the I-710 facility, and the potential to either significantly increase or decrease those impacts as a result of the proposed Project, EPA reiterates the recommendation that Caltrans thoroughly characterize, consider, and disclose the potential air quality and public health impacts from the Project and use the results of the analyses to inform decisionmaking.

EPA is strongly supportive of the first stated purpose of the I-710 Corridor Project, which is to improve air quality and public health. Air quality throughout the South Coast Air Basin remains one of the worst in the country, and the direct and indirect air pollutant emissions resulting from goods movement from the Ports of Los Angeles and Long Beach along the I-710 are a major contributor to this poor air quality. We note, however, that we continue to have serious concerns about the accuracy and thoroughness of the air quality analysis in the Administrative Draft Environmental Impact Statement (ADEIS; January 2012) and the Air Quality and Health Risk Assessments Technical Study (AQHRA; February 2012), and reiterate here recommendations that we have made on prior protocols and analysis as part of this project through correspondence identified in the cover letter.¹

Most significantly, we note that the analysis presented in both the ADEIS and the AQHRA predicts that all of the project build alternatives will result in adverse air quality impacts (alternatives 5A, 6A, 6B, and 6C) compared to the no build alternative (alternative 1). Specifically, all of the build alternatives will lead to increases in CO, PM10, PM2.5, and acrolein emissions compared to the no-build, alternatives 5A and 6A will lead to increases in NOx and Diesel PM compared to the no-build, and alternative 6A will lead to increases in ROG compared to the no-build (see Tables 4.4, 4.9, and 5.2b of the AQHRA). Also, to the extent that ambient concentrations were modeled, all of the build alternatives predicted hotspot increases in PM10, PM2.5, and Diesel PM.

Furthermore, we are concerned that many of the assumptions made in the EIS substantially underestimate impacts from the build alternatives. In particular, as discussed above, the assumption of full goods movement traffic for all build alternatives would cause an overestimate of the impacts of the no-build alternative, which then makes the impacts of the build alternative look smaller in comparison. Similarly, the ADEIS does not contain sufficient analysis of construction impacts, nor does it quantify PM2.5-related mortality and morbidity, both of which cause systematic underestimation of risks at hotspots along the I-710, throughout the basin, and at interim stages between 2008 and 2035.

We describe these concerns and others in more detail below.

Air Quality - Consideration of PM2.5 impacts

PM2.5 impacts may be the largest public health impact from the proposed I-710 Corridor Project.² The ADEIS and AQHRA do not quantify changes in annual PM2.5 concentrations due to the project, nor the

¹ Scoping (September 26, 2008); Air Quality and Health Technical Report Methodology (February 5, 2009); Purpose and Need (October 2009); Children's Health, Environmental Justice, Health and Air Quality (August 2010); and Restating EPA Concerns with Project (March 2011).

² Using EPA methodology, California ARB estimates that there are 8,400 deaths per year (estimated range of 5,400 - 11,000) in California associated with PM2.5 concentrations above 5.8 µg/m³, with over half of the deaths due to high PM2.5 levels in

associated mortality and morbidity impacts related to predicted increases in PM2.5. The only presentations on PM2.5 impacts in the ADEIS focus on PM2.5 emissions and 24-hour PM2.5 concentrations, neither of which is sufficient to characterize likely adverse impacts from PM2.5 throughout the project area and air basin.

The only hotspot presentation of PM2.5 impacts in the ADEIS appears to be maps (without an explanation of the context) in Appendix R, which is both insufficient for public disclosure and decision-making. The map can be misleading due to the focus on only changes above or below 2.5 $\mu\text{g}/\text{m}^3$. Relying on the stated CEQA significance threshold of 2.5 $\mu\text{g}/\text{m}^3$ for the NEPA analysis is not appropriate, as any increase in PM2.5 concentration in this area (with some of the highest PM2.5 concentrations in the U.S.) is likely unacceptable and not in line with the stated purpose of the project to improve air quality.

Recommendations:

- As EPA has noted previously, the DEIS for this project should quantitatively evaluate annual PM2.5 impacts, in addition to the 24-hour averaging time, from all alternatives compared to both current conditions (2008) and the no-build alternative (2035), as well as interim years (discussed below). Contour maps for changes in PM2.5 concentrations for all alternatives should be included in the main text, and more policy relevant cut-points (e.g. ± 0.1 , ± 0.5 , ± 1 , ± 2 , microgram/ m^3 etc.) should be represented in the maps.
- The DEIS should also quantitatively evaluate PM2.5 mortality and morbidity throughout the project area and air basin as a result of changes in PM2.5 emissions from the proposed project. EPA has previously offered a methodology for completing such an analysis and would work with project sponsors in the future to further scope the analysis, if needed.

Air Quality - Quantification of Construction Impacts

The ADEIS and AQHRA quantify worst-case, project-wide construction emissions, but do not quantitatively evaluate construction-related changes in criteria pollutant ambient concentrations, MSAT risk, or PM2.5 mortality and morbidity. For the project-level conformity discussion for the project, the ADEIS states that since construction will not occur at any one location for more than five years, construction-related emissions are considered temporary and not included in this hot-spot analysis. Construction impacts are likely to be significant for a project of this magnitude, and should be quantitatively evaluated in the DEIS.

Recommendations:

- In addition to the quantitative evaluation of construction-related criteria pollutant emissions, the DEIS should quantify estimates of construction-related changes in ambient concentration, MSAT risk, and PM2.5 mortality and morbidity for interim project years. Construction impacts should be added to operational impacts for interim years, including the peak construction years and ideally every five years between the current year and final build year.
- As EPA has recommended previously, we recognize the challenge of quantitatively predicting construction-related impacts at this stage. However, it is still possible to

the South Coast air basin (http://www.arb.ca.gov/research/health/pm-mort/pm-report_2010.pdf). Air pollutant emissions due to goods movement is a major contributor to PM2.5 concentrations throughout the state.

determine the magnitude of impacts through two approaches: First, the DEIS should estimate the project-wide magnitude of construction impacts by using simple assumptions of emissions occurring throughout the linear project and spread out over the build years. This would provide a first-cut estimate of impacts throughout the project area. Second, the DEIS should consider an example construction phase and quantitatively evaluate the likely impacts for a model segment. More detailed assumptions should be possible for this segment, including improvements on assumptions for construction phasing, proximity to populated areas, and duration of impacts. For this more detailed example, EPA recommends evaluating a geographic area that is more highly populated and/or in closer proximity to construction activities.

- Lastly, the DEIS should provide more information on how the construction will be phased over time at the different locations around the facility. This information is needed to inform the decision to remove construction impacts from the transportation conformity hot spot analysis and to evaluate whether 2035 has the maximum expected emissions. The information would also be helpful for Southern California Association of Governments (SCAG) as they include the emissions from the various construction phases into the regional conformity analysis for the appropriate years; dust from road construction has already been included in the PM10 and PM2.5 motor vehicle emission budgets for the area.

Assumptions on Background Concentrations

Straight line extrapolation of current ambient concentrations to estimate future background concentrations is not technically supported. The projected trends in background regional concentrations are assuming that trends from 2005 to 2010 are expected to remain constant until 2035. This is inconsistent with data presented in the 2007 PM2.5 South Coast Air Quality Management Plan, the 2007 State Emissions Inventory and the 2011 ARB Progress Report on Implementation of the PM2.5 SIP for the South Coast. The 2007 South Coast AQMD shows downward trends that vary significantly from 2005 to 2015, with reductions tapering off at a much slower rate between 2015 and 2024 once the major control measures in the plan have been implemented. Similar trends can be seen by reviewing the regional emission trends presented in the 2007 State Emissions Inventory. This inventory shows the rate of decrease in emissions from 2010-2023 dropping to half of the rate shown from 2005 to 2010. In addition, as recognized in the 2011 plan progress report developed by ARB, the recession has impacted emission significantly in recent years. While reductions in activity associated with the recession could be expected to extend beyond 2014, with economic recovery we would expect regional emission trends to change with changes in vehicle miles traveled (VMT), goods movement, and industrial activity.

The ADEIS concludes that the project, despite significant increases in emissions for both PM10 and PM2.5 for all build alternatives, will not contribute to new or worsened violations of the National Ambient Air Quality Standards (NAAQS). EPA does not believe this conclusion is supported given the inaccuracy we have identified in the background assumption.

Recommendations:

- Estimates of future background concentrations should be consistent with how they were done for other regulatory purposes and should consider other data that may affect future concentrations. In the 2011 Progress Report on Implementation of the PM2.5 SIP for South Coast, ARB presents a range of recovery scenarios based on Congressional Budget Office

Forecasts and other assumptions³. Future estimates for this project should be consistent with these projections. Also, with the revised background and other revised analyses recommended here, the DEIS should include a new discussion of the potential for contributing to new or worsening violations of the NAAQS.

Air Quality Mitigation

EPA does not agree with the statement in Section 3.13.4 of the ADEIS that, because the project “will not result in adverse long-term air quality impacts,” “no avoidance, minimization, or mitigation measures are required.” As noted above, the existing analysis in the ADEIS and AQHRA predicts an increase in adverse air quality impacts for all alternatives, and we have serious concerns that the existing analysis underestimates these impacts.

Recommendation:

- EPA strongly recommends a more aggressive approach for air quality mitigation. The project sponsors should meet and ideally go beyond CARB requirements for in-use non-road diesel engines and equipment, specifically the non-road construction fleets. CARB’s in-use non-road diesel requirements are in effect, being enforced, and meet the most stringent EPA Tier standards available for new engines. See <http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm>.

CARB currently is enforcing idling limited to 5 minutes (including written idling policy requirements, and a number of in-use off-road fleets that mostly include construction equipment requirements). EPA recommends that, where possible, the project include advanced compliance with CARB’s idling limits for large and small off-road diesel fleets.

Regional Air Quality Conformity

EPA provided comments previously on the PM_{2.5} and PM₁₀ project-level transportation conformity analysis.⁴ The DEIS should specifically address all of the comments made previously for conformity. We reiterate here our previous comment on the identification of project alternative for modeling purposes in the regional conformity analysis of the 2012 Regional Transportation Plan (RTP).

The ADEIS states that the proposed I710 project was included in the 2008 RTP as “widen to 5 mixed flow plus 2 dedicated lanes for clean technology trucks (each direction), and interchange improvements” and will be included in a future amendment to the 2011 Federal Transportation Improvement Plan (FTIP), for which FHWA and FTA will issue a conformity determination by June 2012. This project description seems to be consistent with alternative 6B, which results in the lowest estimated emissions.

Recommendation:

- Please clarify which project alternative (6A, 6B or 6C) has been included for modeling purposes in the regional conformity analysis for the 2012 RTP.

Environmental Justice

³ *Progress Report on Implementation of the PM_{2.5} SIP for the South Coast and San Joaquin Valley Air Basins and Proposed SIP Revisions*, California Air Resources Board, March 29, 2011; See Pages 31 and 32, available at http://www.arb.ca.gov/planning/sip/2007sip/2011_sip_staff_report_with_appendices.pdf

⁴ “Air Quality Technical Addendum, Interstate 710 Corridor Project, PM_{2.5} AND PM₁₀ Analysis,” Caltrans, District 7, January 2011; comments transmitted by Karina O’Connor via email, February 2011.

EPA acknowledges the effort of the EIS to address the impacts on communities by examining minority, income, and age, in the context of the high cost of living in California in accordance with Executive Order 12898. The Administrative EIS provides evidence that low income and minority communities bordering the I-710 are already heavily burdened as a result of exposure to air pollution from transportation related activities. The communities will continue to be impacted with the many projects planned in the Region, including the I-710 expansion. Therefore, all impacts, even seemingly small ones, are important to consider and mitigate in order to offset the project-related impacts to the local communities.

There is a growing body of evidence that low income and minority communities are more vulnerable to pollution impacts than other communities.⁵ As discussed in *EPA's Framework for Cumulative Risk*,⁶ disadvantaged, underserved, and overburdened communities are likely to come to the table with pre-existing deficits of both a physical and social nature that make the effects of environmental pollution more, and in some cases, unacceptably, burdensome. Thus, certain subpopulations may be more likely to be adversely affected by a given stressor than the general population.⁷ Identifying additional mitigation measures supported by the community will further protect the community from the disproportionate and adverse health impacts of the proposed project.

Near-roadway exposure to air pollution is linked to a variety of adverse health outcomes including asthma and adverse birth and childhood outcomes.⁸ The communities bordering the I-710, on average, have a higher minority composition and are lower income than Los Angeles County. It is likely that those living within a closer range to the I-710, who are at a higher risk of near-roadway exposure, are also disproportionately low-income and minority. Additionally, there are existing sensitive receptors that are within 500 feet of a major highway. California passed a law in 2004 prohibiting the construction of new schools within 500 feet of major highways.⁹ Considering buffers and identifying mitigations to protect sensitive receptors and populations living in close proximity to the I-710 could improve the environmental and public health implications of the project.

Recommendations:

- The Administrative EIS could be improved by including an analysis of the population that lives within a 500 foot buffer of the existing I-710, and also a 500 foot buffer from the roadway where the proposed project will be completed (as stated in our August 20, 2010 letter).
- The EIS would also be improved by identifying schools, daycares, and senior centers in environmental justice communities within this buffer. If there is a disproportionate and adverse impact within the buffer, the EIS should identify additional mitigations for protecting the environmental justice community and sensitive receptors.

⁵ Symposium on the Science of Disproportionate Environmental Health Impacts, March 17 - 19, 2010, see the fourteen scientific reviews commissioned by EPA and published in the American Journal of Public Health at: <http://www.epa.gov/compliance/ej/multimedialalbums/epa/disproportionate-impacts-symposium.html>.

⁶ Available at: <http://www.epa.gov/raf/publications/framework-cra.htm>.

⁷ Sacks, Jason D. et al. 2010. Particulate Matter-Induced Health Effects: Who Is Susceptible? *Environmental Health Perspectives* 119(4).

⁸ Padmanabhan, N. & Glenn, B. August 2009. *EPA Research Focus on Health Effects of Near-Roadway Air Pollution*. Air and Waste Management Association, EM Magazine. Available at: <http://www.epa.gov/ord/ca/pdf/2009padmanabhan.pdf>

⁹ Senate Bill No. 352, Chapter 668; Official California Legislative Information, 2003-2004 Session; available online at www.leginfo.ca.gov/pub/03-04/bill/sen/sb_0351-0400/sb_352_bill_20031003_chaptered.pdf.

Disproportionate Construction Impacts

The environmental justice analysis does not take into account construction-related impacts on the community. Construction could potentially impact air quality, noise, traffic, and other elements identified in the EIS. Construction could also have an adverse impact on the sensitive receptors, including schools, daycares, and senior centers in close proximity to the I-710. The Community Impact Assessment (section 6.3.1.1) states that it is not possible to analyze specific impacts on populations of concern from an EJ perspective but concludes that the construction emissions could constitute a disproportionate adverse impact to low-income and minority populations that are closest to the freeway.

Recommendation:

- Identify potential construction related impacts on the environmental justice communities bordering the I-710. If there are disproportionate and adverse construction related impacts, identify mitigations for these impacts. Please refer to the recommendation in our “Air Quality” comments under “Quantification of Construction Impacts” to identify a methodology for measuring potential construction related impacts.

Disproportionate Air Quality Impacts

The ADEIS does not sufficiently consider the likely disproportionate air quality impacts on EJ groups or otherwise vulnerable populations. For example, older adults, children, those with pre-existing respiratory and cardiovascular conditions, people with low socioeconomic status and low educational attainment are all particularly susceptible to PM2.5-related health impacts.¹⁰

Recommendation:

- The DEIS should quantitatively evaluate changes in ambient concentrations and mobile source air toxics (MSAT)-associated risk with respect to minority status, income, older and younger populations, and other vulnerability factors. At a minimum, the DEIS should include tables with the following information:

PM2.5 (annual average) Concentration Change	Population Exposed Within Concentration Range						
	Total	%<18 years	%>64 years	% Minority	<2*Poverty Level	% over 25 without high school diploma	% linguistically isolated households
<-5 □g/m ³							
-5 to -2 □g/m ³							
-2 to -1 □g/m ³							
-1 to -0.5 □g/m ³							
-0.5 to -0.1 □g/m ³							
-0.1 to 0 □g/m ³							
0 to +1 □g/m ³							
+1 to +2 □g/m ³							
+2 to +5 □g/m ³							
>+5 □g/m ³							

¹⁰ See Chapter 8 of EPA’s Integrated Science Assessment for Particulate Matter (December 2009); http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=494950.

- The DEIS should have similar tables for MSAT-related risks (recommended cut points of 0-10, 10-50, 50-100, 100-200, and 200+ in a million risk), MSAT-related hazard index, 24-hour PM2.5, and PM10 concentrations.

Mitigating Environmental Justice Impacts

The ADEIS identifies that disproportionate and adverse impacts are identified and would have to be mitigated. As stated above regarding impacts to Air Quality, EPA suggests that there might be additional air quality impacts that are not identified in the Administrative EIS. Often times the impacts are unintended or difficult to characterize without a methodology that comprehensively looks at the health of a population and the distribution of those effects within the population. EPA provided extensive feedback concerning the validity of the scope and methodology of the HIA being completed as part of the Gateway Cities Air Quality Action in the I-710 Corridor Project.¹¹ While EPA's critique of that process reflects concerns that were not addressed, that process may result in identified mitigation measures. We note that in the Community Impact Assessment, the research questions for the separately prepared HIA are presented and addressed but this discussion is not as robust as a fully completed HIA and it is not clear how the information presented here links with the that HIA process.

The recommendations for mitigation, either developed from the HIA that is being conducted as part of the Gateway Cities Air Quality Action Plan or through collaborations with citizens, could be funded through a creative method like one of the programs implemented by the ports. The Ports of Long Beach and Los Angeles have developed creative solutions to mitigate community impacts from port-related activities that are not addressed in project EISs. The Port of Long Beach developed a Mitigation Grant Program to offset the impacts of port-related operations in the community through three programs to address health-care and senior facilities, schools, and greenhouse gas reductions programs.¹² The Port of Los Angeles developed a non-profit, the Harbor Community Benefits Foundation, to carry out mitigation and other public benefit projects that assess, protect, and improve health, quality of life, and the natural environment, with a focus on near-port communities.¹³

Recommendations:

- EPA recommends additional mitigation measures to further reduce the community's exposure and reduce community vulnerability.
- EPA continues to recommend that mitigation measures be developed through open, collaborative processes that include the public and affected citizens.
- To the extent that the separately completed HIA can inform mitigation measures, Caltrans should adopt and implement all feasible measures.
- A program similar to the Port of Long Beach's Mitigation Grant Program or the Port of Los Angeles's Harbor Community Benefits Foundation could be implemented as potential vehicles for addressing and mitigating these impacts. Mitigations that include a more holistic approach to protecting health include:

¹¹ Gateway Cities Council of Governments and Los Angeles County Metropolitan Transportation Authority. April 2011. *The Gateway Cities Air Quality Action Plan Fact Sheet*. Available at: <http://www.metro.net/projects/gcaqap/gcaqap-fact-sheet/>

¹² Information on the Port of Long Beach Mitigation Grant Programs is available at: <http://www.polb.com/environment/grants/default.asp>.

¹³ Information on the Harbor Community Benefit Foundation is available at: <http://www.hcbf.org/>.

- Fund proactive measures to improve air quality in neighboring homes, schools, and other sensitive receptors;
- Provide public education programs about environmental health impacts to better enable residents to make informed decisions about their health and community; and
- Engage in proactive measures to train and hire local residents for construction or operation of the project to improve their economic status and access to health care.

Children’s Environmental Health and Safety

Executive Order 13045 on Children’s Health and Safety directs that each Federal agency shall make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and shall 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 health and safety risks. Children may be more highly exposed to contaminants because they generally eat more food, drink more water, and have higher inhalation rates relative to their size. Also, children’s normal activities, such as putting their hands in their mouths or playing on the ground, can result in higher exposures to contaminants as compared with adults. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed.

Based on current EPA policy and guidance, an analysis of impacts to children should be included in a NEPA analysis if there is a possibility of disproportionate impact on children related to the proposed action.¹⁴ EPA views childhood as a sequence of lifestages, from conception through fetal development, infancy, and adolescence. Therefore, exposures to children at each lifestage, as well as pregnant and nursing women, are relevant and should be considered when addressing health and safety risks for children.

Because children can be more susceptible to mobile source air pollution and generally experience higher exposures to air pollution than adults, we recommend that the Draft EIR/EIS further address the potential direct, indirect, and cumulative impacts of the proposed project on children’s health, including consideration of prenatal exposures (exposures that may be experienced by pregnant women).

Children’s Health - Community Impacts

Chapter 3.3 discusses community impacts. Pages 3.3-11 through 3.3-17 identify community facilities (e.g., schools, libraries, and places of worship) within the I-710 Corridor Project study area. Because *children and older adults are more susceptible to environmental exposures, it is recommended* that a discussion of child care and senior citizen care facilities within the study area and potential direct and indirect impacts of the project on these facilities be added to the Draft EIR/EIS.

Recommendations:

- As recommended in the Environmental Justice comments, identify child care centers and senior citizen care facilities within 500 feet of the project area, and create a list of these facilities similar to Tables 3.3-5 and 3.3-6. In addition, add the location of these facilities to Figure 3.3-1.

¹⁴ U.S. EPA. April 4, 1996. Memorandum: Interim OFA Program Guidance on Implementing the EPA Policy on Evaluating Health Risks to Children. Available at: <http://www.epa.gov/compliance/resources/policies/nepa/children-health-risks-pg.pdf>.

- Identify and discuss the potential direct and indirect impacts from construction and operation of the project alternatives on child care and senior citizen care facilities within the project area. This information could be added to Table 3.3-8. Please also identify measures to reduce those impacts, including measures identified in the recently released Draft Schools Environmental Health Guidelines for reducing exposure of environmental hazards near schools.
<http://www.epa.gov/schools/ehguidelines/index.html>.

Children's Health - Air Quality Impacts

Chapter 3.13 of the Draft DEIR/DEIS discusses air quality impacts and the information in this chapter is based on the November 2011 Draft Air Quality and Health Risk Assessment Technical Study. The revised Air Quality and Health Risk Assessment Technical Study (February 2012) was provided to EPA Region 9 during the comment period, and the comments below focus on Draft DEIR/DEIS and the February 2012 Technical Study, which discusses air quality, health risk, and greenhouse gas impacts of the Project Alternatives.

Childrens Health – Air Quality - Consideration of Roadway Proximity and Potential Health Impacts to Sensitive Receptors

CalTrans used AERMOD to assess air quality and health risk impacts at 1,173 sensitive receptors (e.g., schools, senior centers, child care facilities etc.).¹⁵ The Technical Study states that the incremental cancer risk, chronic hazard index, and acute hazard index for all 2035 Alternatives compared to the 2008 baseline decrease at all sensitive receptors located within five kilometers of the I-710 freeway centerline. It is unclear whether health risk impacts to children at schools and child care facilities were determined using child-specific exposures.

Because children can be both more susceptible to mobile source air pollution and experience generally higher exposures from air pollution than adults, the EPA recommended in its August 20, 2010, letter to California Department of Transportation District 7 that the health risk assessment assess the impacts of the project on children's health, including consideration of prenatal exposures (exposures that may be experienced by pregnant women), in the health risk assessment. EPA recommended that the health risk assessment characterize children's exposures and susceptibilities to pollutants of concern and incorporate child-specific exposure factors in the analysis of exposures at schools, daycares, and parks.

Recommendations:

- Assess the project's impact to children's environmental health by incorporating child-specific exposure factors using EPA's Child Specific Exposure Factors Handbook, 2008,¹⁶ or an equivalent source recommended by the State of California, in the analysis of exposures at schools, daycares, and parks. In addition, we recommend using the recommended age groupings provided in EPA's Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants, 2005.¹⁷ The document describes a set of age groupings that can be used, and when necessary adapted, for purposes of designing monitoring studies and conducting risk assessments focused on children.

¹⁵ Sensitive receptors were defined as: long-term health care facilities, rehabilitation centers, retirement homes, schools, and child care centers. See page D-6 of the Air Quality and Health Risk Assessments Technical Study Appendix D (February 2012).

¹⁶ The EPA Child Specific Exposure Factors Handbook is available at: <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=199243>.

¹⁷ The EPA Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants is available at: <http://www.epa.gov/raf/publications/pdfs/AGEGROUPS.PDF>.

- It is recommended that the dose-response assessment discuss whether the dose-response values being used in the risk assessment include a consideration of children's susceptibilities. Where a chemical has been identified as a concern for children through the Hazard ID process but the dose-response value that is being used does not appear to take into account that susceptibility, this should be discussed qualitatively as an uncertainty in the risk characterization section of the risk assessment.
- It is recommended that the risk characterization discuss the known and expected risks to children living, playing, or going to school near the project site.

Children's Health - Asthma

Research has demonstrated that traffic-related air pollution can exacerbate asthma and may be associated with the onset of childhood asthma.¹⁸ In the EPA Region 9 letter sent to the California Department of Transportation District 7 on August 20, 2010, EPA recommended that the air quality and health risk assessment protocol consider existing asthma rates and asthma severity among children and the general community within the project area. EPA recommended that the Risk Characterization, Cumulative Impacts Analysis, and EJ Analysis identify impacts of the proposed project on asthma rates and severity in children near the project site and should quantify the costs associated with these impacts, to the extent feasible.

A review of Chapters 3.3 (Community Impacts), 3.13 (Air Quality), and 3.25 (Cumulative Impacts), and the February 2012 Air Quality and Health Risk Assessment Technical Study did not identify any discussion of existing asthma rates among children and the surrounding community nor a discussion of how the proposed project may impact asthma morbidity.

Recommendations:

- Assess existing asthma rates and asthma severity among children and the general community within the project area.
- To the extent feasible, identify the impacts of the proposed project's construction and operation on asthma rates and severity in children near the project area, and quantify the costs associated with these impacts.

Children's Health - PM Morbidity and Mortality

As discussed above in the air quality section and in the August 2010 letter from EPA to Caltrans, EPA recommended a quantitative assessment of PM_{2.5} mortality and morbidity. The Air Quality and Health Risk Assessment Technical Study (February 2012), however, has a qualitative assessment and does not fully discuss PM_{2.5} mortality and morbidity among children and the surrounding community. The addition of such an assessment would better inform the I-710 Corridor Project decision-making process of the potential health impacts to children and surrounding communities.

Recommendations:

- Provide a quantitative assessment of PM_{2.5}-related morbidity and mortality among children and the surrounding community. Please refer to the recommendation in our "Air Quality"

¹⁸ HEI Panel on the Health Effects of Traffic-Related Air Pollution. 2010. *Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects*. HEI Special Report 17. Health Effects Institute, Boston, MA.

comments under “Consideration of EJ Impacts” on a recommended method for quantifying PM_{2.5}-related morbidity among children and other vulnerable populations.

Childrens Health - Air Quality Impacts from Construction

EPA’s August 2010 letter also recommended a quantitative assessment of PM_{2.5} and air toxics emissions and dispersion for project-related construction activities. A review of Chapter 3.13 and the Air Quality and Health Risk Assessment Technical Study (February 2012) did not identify a complete discussion of the air quality impacts from construction activities on children’s health and the surrounding community. The addition of such an assessment and discussion would provide a more complete understanding of the potential health impacts for the entire duration of the I-710 Corridor Project.

Recommendations:

- Please refer to the recommendation in our “Air Quality” comments under “Quantification of Construction Impacts” to identify a methodology for measuring potential construction related impacts. Additionally, identify the potential air quality impacts from construction activities and how the potential impacts may affect the health of children and the community near the project area. Similar to the comment above, identify the impacts of the proposed project’s construction on asthma rates and severity in children near the project area, and quantify the costs associated with these impacts.
- It is recommended that the selection of construction staging areas and phasing of construction activities consider where schools, child care centers, and other sensitive receptors are located. It is also recommended that the utilization of green construction equipment be considered, especially when construction areas are in close proximity to sensitive receptors.

Air Quality Health Risk Assessment – Detailed Comments

EPA has the following detailed comments on the I-710 Corridor Project ADEIS and AQHRA:

- (AQHRA, ES and Chapter 4) In addition to comparisons to 2008, all tables in the AQHRA should include a corresponding comparison between the build alternatives in 2035 and the no-build alternative (Alt. 1) in 2035, since this comparison is most relevant for the NEPA decision. Specifically, the following tables should be updated to reflect this change: ES.1, ES.2, ES.3, ES.4, ES.5, 4.3a, 4.3b, 4.3c, 4.4, 4.6b, 4.6c, 4.6d, 4.6e, 4.7b, 4.7c, 4.8d, 4.8e, 4.8a, 4.8b, 4.8c, 4.9, 4.10a, 4.10b, 4.10c, 4.10d, and 4.10e. These revised figures should be accompanied with an updated discussion in each corresponding section of impacts relative to the no-build scenario.
- (AQHRA, Section ES.7) The cumulative impact of the construction emissions in addition to other operational emissions need to be presented and discussed in Section ES.7, including modifications to Table ES.6.
- (AQHRA, Sections ES.9 and 4.5) The methodology for conducting the qualitative PM_{2.5} mortality and morbidity analysis should be more completely described in Section 4.5.
- (AQHRA, Sections 4.2 and 4.3) Chapter 4 includes a separate section for construction (4.2) and operational (4.3) impacts, but should include a section that describes cumulative impacts of

construction and operations during interim periods. This discussion should also include a discussion of particular impacts to sensitive and environmental justice populations.

- (AQHRA, Section 4.3.4) Section 4.3 should include an analysis of annual average PM_{2.5} concentrations throughout the project area, as well as near-roadway (Section 4.3.4). All tables with modeled impacts for PM_{2.5} should include annual average in addition to 24-hour averaging time, specifically: Tables 4.7a, 4.7b, 4.7c, 4.7d, and 4.7e. Also, EPA does not agree that the CEQA thresholds are appropriate for comparison in these tables for NEPA purposes, as any increase of PM_{2.5} or PM₁₀ in this area may be considered unacceptable and certainly counter to the stated purpose of the proposed project of improving air quality.
- (AQHRA, Section 4.8) The statement that “the proposed project would result in new violations of the federal air quality standards” is not sufficiently supported. As noted above, the assumptions on background changes are inappropriate and this statement should be removed. Similarly, the first two bullets on Page 54 are incorrect and should be removed. The final two bullets are similarly misleading, since any increase of PM₁₀ or PM_{2.5} emissions compared to the no-build scenario (comparing 2035 to 2035) may either delay attainment of the NAAQS or could cause new violations.
- (AQHRA, Appendix E) Appendix E (Health Risk Assessment) should, at a minimum, provide all the results for the six MSAT included in this study, as well as all of the interim calculations for the results presented in Tables 4.10a-e.
- (ADEIS, Section 3.13 Intro) The air quality section should include a discussion of how the likely geographic extent of the air quality impacts aligns with the project study area (identified in Section 1, Page 1-5). Since some of the project decisions will affect basin-wide air pollutant emissions, it is possible that air quality impacts will extend beyond the project study area, which should be discussed in Section 3.13.
- (ADEIS, Pages 3.13-19 through 3.13-24) In addition to the need for interim year analysis noted above, the section on “Traffic Changes Due to the Proposed Project” should also include an analysis of interim years, specifically Tables 3.13-8, 3.13-9, 3.13-10, 3.13-11, 3.13-12, and 3.13-13.
- (ADEIS, Page 3.13-32) The MSAT Analysis should include a presentation of emissions by roadway segment or segment groupings, expanding upon Tables 3.13-20 and 3.13-21.
- (ADEIS, Section 3.13-4) As noted above, the statement that the project “will not result in adverse long-term air quality impacts” and thus “no avoidance, minimization, or mitigation measures are required” is not true and should be eliminated. The DEIS should include adoption of the following mitigation measures:

MM-AQ1: Deploy Best Available Control Technology (BACT)

Project must require BACT during construction and operation of projects, meeting the most stringent alternatives available (e.g., CARB’s in-use diesel off-road BACT requirements; EPA’s most stringent non-road Tier standards available), including but not limited to:

- a) Soliciting bids that include use of energy and fuel-efficient fleets;
- b) Soliciting preference construction bids that use BACT, particularly those seeking to deploy zero emissions technologies (see MM-AQ2 below for more specific guidance on construction equipment deployment);

- c) Employing the use of alternative fueled vehicles;
- d) Using lighting systems that are energy efficient, such as LED technology;
- e) Using the minimum feasible amount of GHG-emitting construction materials that is feasible;
- f) Use of cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
- g) Use of lighter-colored pavement where feasible;
- h) Recycling construction debris to maximum extent feasible; and
- i) Planting shade trees in or near construction projects where feasible.

MM-AQ2: Electric Power during Construction

Project sponsors will ensure to the extent possible that construction activities utilize grid-based electricity and/or onsite renewable electricity generation rather than diesel and/or gasoline powered generators.

Impacts to LA River and other Aquatic Resources

Given that the proposed project is in such close proximity to the LA River, water quality, stormwater management, and integrated design measures to reduce impacts are critical. The DEIS is the appropriate location to identify measures that can, collectively throughout the 18 miles of the project footprint, enhance and maintain hydrologic flow while still accommodating necessary additional footings and supports within the LA River.

Recommendations:

- EPA recommends that specific Low Impact Development (LID) design measures be identified and described in the DEIS, with reference to location for implementation as well as a description of impacts avoided and/or reduced through incorporating such measures. Expand upon the discussion to insure that stormwater runoff will be managed to insure no adverse impacts to water quality will result from the project.
- The ADEIS should describe local efforts to restore and maintain the health of the LA River, including proposed new parks, open space, and recreation planned. Confer with The San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy (RMC) and the local cities and community groups along the LA River to insure that local efforts to improve the river and the surrounding area can be integrated with I-710 expansion efforts.

Impacts to Jurisdictional Waters

The ADEIS does not clearly explain the location of the project's potential impacts to Waters of the United States (WOUS). Table 3.17-3 (I-710 Corridor Project Effects to Potentially Jurisdictional and Nonjurisdictional Areas) does summarize these impacts, and Appendix S-2 contains maps showing impacts to jurisdictional waters. The maps, however, do not differentiate between Army Corps, Regional Water Quality Control Board and California Department of Fish and Game jurisdictional waters. Further, in describing the requirements of Section 404 of the Clean Water Act, the ADEIS states, "no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment . . ." but the ADEIS does not discuss the steps taken in the project's design to avoid and minimize impacts to jurisdictional waters.

Recommendation:

- We recommend the DEIS include a table identifying the elements of the project and alternatives that impact waters of the United States, similar to Table 3.8.1. - Floodway Impact Areas, and include accompanying maps for each area.
- Clearly identify steps to avoid and minimize impacts to aquatic resources, including waters of the United States.
- Include the final impacts to waters of the United States as determined by an approved jurisdictional determination from the Army Corps.

Relocation of Los Angeles Department of Power and Water (DPW) Transmission Towers

EPA is concerned with the relocation of DPW transmission towers within the LA River. Table 3.8.1 estimates that DWP tower relocations will impact 8596 square feet (0.2 acres) of floodway and remove 659,342 square feet (15.1 acres) from the floodway. Each relocated tower will require the modification of approximately 1,000 feet of channel to accommodate the new tower supports and transitions (p. 3.8-14), but this appears inconsistent with the design for tower relocation, using a platform and pier design, shown in Figure 3.4-4. The design in Figure 3.4-4 is also inconsistent with Sheets 13, 14 and 14 of Appendix S-2, which show substantial channel fill at each relocated tower. Section 3.8, Hydrology and Floodplain, also discusses modification to maintain hydraulic capacity (p. 3.8-12 and 14), but the ADEIS does not show the location or design of these modifications.

Recommendations:

- Revise the DPW tower support design to be consistent with the description.
- Describe and map Los Angeles River channel modifications and describe the impact of these modifications to waters of the United States.
- Describe changes to the hydraulic function of the channel to control flood flow resulting from the channel modifications.
- Describe the extent to which habitat (for migratory birds and other animals) will be impacted by changing hydraulic conditions to the LA River.

Wayside Electric Power Distribution System and Electrical Substations

The document states that Alternatives 6B and 6C include a wayside distribution system and electrical substation as an element of the freight corridor. However, the specific technology for power distribution is not yet determined, though according to the ADEIS “for purposes of analyses, an overhead catenary distribution system is assumed (Page 3.15-8).”

Recommendation:

- The DEIS should describe the proposed technology, design, and placement of the electrical substations, including impacts to resources from siting such substations.
- Describe measures to avoid, minimize, and mitigation impacts to neighboring residences and environmental resources.

Visual Impacts

Section 3.6 of the ADEIS, Visual/Aesthetics, explains and documents a quantitative analysis of the projects visual impacts. Unfortunately, the second step in the six step process, "identify key views for visual assessment," (p. 3.6-3) is never explained. Are the key views intended to be representative of larger areas, selected randomly, or selected on some other basis? The ADEIS notes that residents will have a "high concern of the proposed changes" and "a high sensitivity to any changes in the visual environment." (Figure 3.6-30). We suspect that residents with yards abutting I-710 and the sound or screen wall will be most sensitive and concerned, but the ADEIS does not provide a perspective from their homes. Key Views 2 and 27 to 30 capture the impact, but typically from a vantage point several hundred feet from the sound or screen walls. For many of these residents, backyard and even indoor daylight hours will be substantially altered.

Recommendations:

- Explain in the DEIS explain the methodology and criteria for selection of the key views.
- Update the DEIS Visual Impact Assessment so that it analyzes the project's visual impacts for the hundreds of homes with lots abutting the sound or screen walls.

Natural Communities

As stated above on the first page of EPA's detailed comments on the ADEIS, Page 3.16-2 states that the Biological Study Area for Natural Communities encompasses approximately 2000 acres and then refers the reader to Appendix H of the Natural Environment Study. Without a visual aid in the document, it is difficult to visualize what the potential impacts will be.

Recommendations:

- Provide a map in Section 3.16 rather than requiring the reader to access an appendix of a Technical Study. Again, the reader is referred to the same Appendix for an illustration of the various vegetative communities. The visual should be provided in an easily accessible figure for the reader.
- As discussed above, include additional discussion about potential impacts to migratory birds.

Cumulative Impacts

The Council on Environmental Quality's (CEQ) regulations for implementing NEPA define cumulative effects as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions (40 CFR Part 1508.7).

The ADEIS lists projects to consider regarding potential cumulative impacts, but the list appears to be outdated and it is unclear how conclusions that "there are not measures identified" to address cumulative impacts for specific resource areas are substantiated. For example, in the assessment of cumulative impacts to Environmental Justice (Page 3.25-40), the ADEIS states, "No specific measures related to environmental justice concerns have been identified at this time. Avoidance, minimization, and mitigation measures stipulated in other sections of this EIR/EIS will reduce impacts to all affected populations, including environmental justice populations." Yet there is no reference at all in this section

to other, nearby ongoing, planned, and future projects that may also have an impact on low-income and minority populations. It appears that the list of Cumulative Projects was provided without being incorporated into a hard look and analysis of what additional impact to resources those projects may have when also considered with the I-710 project.

Recommendations:

Update the Cumulative impacts analysis so that conclusions of “no measures” identified are supported with analysis and data related to the list of cumulative projects identified. Specifically, please update this Section to identify how Cumulative Projects were considered with regard to potential additional impacts to resources that will result when considering those projects along with I-710. Are there projects that, if all constructed at the same time, would heavily burden specific communities (with regard to construction impacts)? Are there measures that can be adopted such as staging construction so as not to overly-impact one community?

We note that the source of information for the cumulative impacts analysis for several projects was the SR47 Cumulative List. That Final EIS was completed in July 2009, and it appears that information presented in this cumulative impacts assessment did not update status provided at that time. We recommend that Caltrans update the status of the cumulative impacts project list to reflect current project status, included, but not limited to the following specific suggestions. It is critical to understand the full scope of the construction and timing of operation for the multiple ongoing projects, or else no assessment of potential cumulative impacts can occur.

Recommendations:

- Page 3.25 -12 --- Update Project P-2 to reflect status. States “construction was expected to begin in 2009 and be completed by 2014” Confirm if this is accurate. If not, update to reflect actual construction window. With updated information considered, are there cumulative impacts that can be mitigated?
- Page 3.25-16 ----Update Project P-18 Berths 302-306 [APL] container Terminal Project Draft EIS was completed in February 2012. The table should be updated to reflect this project and the proposed construction window, anticipated cumulative impacts. With updated information considered, are there cumulative impacts that can be mitigated?
- Page 3.25-14 ---Update Project P-6 Berths 136-147 [TraPac] Container Terminal Project (west basin development) to reflect current status. Is construction still anticipated to be 2008-2015? With updated information considered, are there cumulative impacts that can be mitigated?
- ---Update Project P-9, Crescent Warehouse Company Relocation, to reflect current status. Has the project gone to completion? Information in the ADEIS was current as of 2008. Include potential cumulative impacts.
- Page 3.25-18 ---Project P-28 and P-29 are presented with no description or status. Please update these projects so that meaningful information from these projects could inform an assessment of cumulative impacts. With updated information considered, are there cumulative impacts that can be mitigated?
- Page 3.25-18 --- update the LA River Master Plan to reflect current status. With updated information considered, are there cumulative impacts that can be mitigated?
- Page 3.25-19 --- update the LA River revitalization Master Plan to reflect project status. Are any project elements underway that could be affected when considered cumulatively?

Noise Impacts

Chapter 3.14 discusses the project's noise impacts primarily by comparing estimated project impacts to Noise Abatement Criteria (NAC) or a substantial increase of 12 dBA. To meet noise reduction design goals, an abatement measure must be acoustically feasible of reducing noise levels by 5 dBA and meet a design goal to reduce noise by 7 dBA to at least one receptor. Additionally, abatement measures consider reasonableness, by comparing abatement costs to a reasonable allowance per benefited receptor, in this case \$55,000 per person.

As explained in FHWA guidance¹⁹, "the NAC are based upon noise levels associated with interference of speech communication and that the NAC are a compromise between noise levels that are desirable and those that are achievable." The NAC was not intended to address "annoyance, sleep, and task interference or disturbance." Because of this, the NAC are in need of review. In *Technology for a Quieter America*, the National Academy of Sciences recommended a multidisciplinary study to evaluate recent European studies linking noise and health impacts. These studies resulted in a joint World Health Organization and European Commission Joint Research Center report estimating that the disease burden from environmental noise is second only to air pollution among environmental factors²⁰.

Even for the intended use of NAC, speech interference, both the standard and noise abatement measures should be reevaluated to consider Executive Order (EO) 13045, Protection of Children from Environmental Health Risks and Safety Risks. It directs federal agencies to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and to ensure that their policies, programs and activities address these risks. Speech interference in schools appears to be the type disproportionate impact that the executive order was intended to address. Studies have shown that classroom noise lowers performance on standardized tests²¹, and academic achievement has a well documented effect on health.

The ADEIS considers soundwalls as the only feasible abatement, apparently dismissing acoustic insulation of public buildings, one of five noise abatement measures mentioned (p.3.14-13). At a cost of less than \$55,000 per student, retrofitting classrooms may achieve the American National Standards Institute (ANSI) design standard of 35 dBA. This seems particularly relevant for schools where sound walls were not used because they did not provide the minimum noise reduction of 5 dBA for acoustical feasibility and 7 dBA noise reduction to at least one receptor.

Another concern about the noise analysis is the quantity used to determine a substantial increase to the existing noise level, 12 dBA. FAA regulations at 23 CFR 772 (f) state: Highway agencies shall define substantial noise increase between 5 dBA to 15 dBA over existing noise levels. Because a 12 dBA increase is more than twice as loud to the human ear, and this highway is through a dense urban corridor, we suggest a lower threshold for a substantial noise increase.

Recommendations:

¹⁹ Noise Policy FAQs - Frequently Asked Questions

<http://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/faq_nois.cfm#note15>

²⁰ Burden of Disease from Environmental Noise, Quantification of Health Life Years Lost in Europe, World Health Organization and European Commission Joint Research Center, 2011

< http://www.euro.who.int/__data/assets/pdf_file/0008/136466/e94888.pdf >

²¹ See the studies referenced by ANSI/ASA S12.60-2002 (R2009) American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools

- Update the NAC values to consider health and learning-related noise impacts, and the quantity used to determine a substantial noise increase.
- Commit to retrofitting impacted classrooms with acoustic insulation as a noise abatement measure.

Greenhouse Gas Emissions

The State of California continues to increase its focus on potential climate change and impacts of increasing greenhouse gas emissions. Specifically, the Global Warming Solutions Act of 2006 and Executive Order S-3-05 recognize the impact that climate change can have within California and provide direction for future reductions of greenhouse gases. As a major transportation corridor in Southern California, this Project will garner significant attention as a source of Greenhouse Gas Emissions (GHGs).

Recommendations:

- EPA recommends that, as practicable, the Draft EIS should ultimately identify the cumulative contributions to greenhouse gas emissions that will result from implementation of the Project. The Protocol should ensure that sufficient information results to ensure a thorough discussion of the potential impacts of climate change on the Project.
- Update the EIS so that it identifies specific mitigation measures needed to 1) protect projects from the effects of climate change, 2) reduce the projects' adverse air quality effects, and/or 3) promote pollution prevention or environmental stewardship. Any sustainable design and operational measures that can be identified as reducing GHGs should be identified in the Draft EIS with an estimate of the GHG emissions reductions that would result if measures were ultimately implemented.

