

2.4 ALTERNATIVE ENVIRONMENTAL IMPACT ASSESSMENT

1. The Draft EIR/EIS lacks sufficient information to substantiate many claims and defers decisions and analyses required for a credible environmental impact assessment.

The Draft EIR/EIS has deferred fundamental design decisions that are necessary to understand the implementation of some alternatives and their environmental impact. In addition, important claims are made without substantiation and some are in conflict with the technical studies. For some technical areas, key environmental impacts are not assessed. For others, claims of 'no significant impact' are made without any criteria or specific documentation for that claim (see separate Finding of Inadequacy in this section). Moreover, important technical analyses have been deferred. Deferrals of important design decisions and technical analyses are often stated without explanation.

These numerous and important deficiencies with the Draft EIR/EIS fail to provide decision-makers and the public with basic and requisite technical/project details and information to intelligently assess environmental consequences.

While numerous examples are cited in the findings throughout this document, a few of the more significant deferrals are summarized below:

- Air quality hot spot analyses.
- Geotechnical studies.
- Ground vibration and blast analyses.
- Seismic design criteria and modeling.
- Ground settlement analyses and impacts.
- Design and location of the tunnel exhaust towers and electric substations at the portals.
- Water requirements and sources of water required to build the tunnels.
- A feasibility assessment for moving Tunnel Boring Machine parts from the port to the construction sites.

Failure to provide sufficient information and analyses required for environmental impacts assessments is in violation of NEPA regulations and CEQA Statutes and Guidelines:

NEPA Desk Guide, October 1999, Sec. 6.7.2.2, Description of Proposed Action and Alternatives, Including No Action, pg. 6-5: "The alternatives section should be the descriptive "heart" of the EA, and include enough information (including location maps) so the decision-maker can readily understand and compare the alternatives against the objectives outlined in the Purpose and Need section."

NEPA Desk Guide, October 1999, Sec. 6.7.2.3 Environmental Effects: "Provide enough information in this description to provide a basis for determining, in the next section, whether any potential impacts are significant and thus require an EIS (see Chapter 3), or whether a FONSI can be prepared."

NEPA 400 CFR 1502.16: "The discussion will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented.... It shall include discussions of: (a) Direct effects and their significance.... (b) Indirect effects and their significance...."

Silveira v. Las Gallinas Valley Sanitary District (1997) 54 Cal. App. 4th 980, 990.: Pursuant to NEPA, an EIS “should serve both to alert the public of what the agency intends to do and give the public enough information to be able to participate intelligently in the EIS process.” (*California v. Block (9th Cir. 1982) 690 F. 2d 753, 772.*)

2014 CEQA Statutes and Guidelines, §15147. TECHNICAL DETAIL: “The information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public”.

2014 CEQA Statutes and Guidelines, §15151. STANDARDS FOR ADEQUACY OF AN EIR: “An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.”

2014 CEQA Statutes and Guidelines, §15126.2 CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS: “(a) ... Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services.”

2014 CEQA Statutes and Guidelines, §15126.6. CONSIDERATION AND DISCUSSION OF ALTERNATIVES TO THE PROPOSED PROJECT. “...(d) Evaluation of alternatives. The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.”

2. The Draft EIR/EIS does not establish criteria for when an environmental impact would be “significant” for purposes of environmental review and mitigation.

The Draft EIR/EIS executive summary (p. 16) states “CEQA, on the other hand, does require Caltrans to identify each “significant effect on the environment” resulting from the project as well as ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an EIR must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated, if reasonably feasible.”

The Draft EIR/EIS fails to establish a criterion for “significance” for the following technical areas:

- Geology/Soils – for ground settlement cause by tunnel boring.
- Seismic – tunnel seismic design criteria.
- Noise – for long-term stationary noise impacts (e.g. for CNEL, L_{dn}, L_{max}, hourly L_{eq}, etc.)
- Safety – for tunnel designs without historic precedence in the U.S and thus falling outside of current U.S. design standards for fire and safety.
- Hydrology and Floodplain – for the tunnel alternative downstream drainage system capability
- Water Quality and Groundwater - for tunneling and excavations

Without criteria establishing what is a significant impact, claims of “no significant impact” are based on inconclusive and unsupported claims that cannot be validated. Consequently, the Draft EIR/EIS fails to provide decision-makers and the public with the technical and project details required to intelligently assess environmental consequences. This is in violation of the following NEPA regulations and CEQA statutes:

NEPA Desk Guide, October 1999, Sec. 6.7.2.4 Significance of Effects: “The analysis in this section must be based on the discussion of “context” and “intensity” in the CEQ regulations (40 CFR 1508.27).”

2014 CEQA Statutes and Guidelines, §15064.7. THRESHOLDS OF SIGNIFICANCE. “(a) Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.”

2014 CEQA Statutes and Guidelines, §15126.2 CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS. (a) The Significant Environmental Effects of the Proposed Project.... Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects.

3. Missing information, deferred designs and analyses, and failure to establish criteria for significant impacts has resulted in a very immature formulation of mitigation measures for this phase of the EIR process.

It has been established in the previous findings in this section that:

- The Draft EIR/EIS lacks sufficient information to substantiate many claims and defers decisions and analyses required for a credible environmental impact assessment, and
- For many technical areas, the Draft EIR/EIS fails to establish criteria for significant environmental impacts; consequently, claims of ‘no significant impact’ are not substantiated.

Without this information, a reasonable formulation of mitigation measures cannot be performed for many technical areas. This is especially troubling for the tunnel alternative, where construction environmental impacts are expected to be very large and have not been reasonably addressed for this stage of the EIR process. In general, deferral of mitigation measures is violation of CEQA, although an exception is made where a mitigation measure is demonstrated to be feasible and performance standards are in place.

2014 CEQA Statutes and Guidelines, §15126.4 CONSIDERATION AND DISCUSSION OF MITIGATION MEASURES PROPOSED TO MINIMIZE SIGNIFICANT EFFECTS: (a)(1) An EIR shall describe feasible measures which could minimize significant adverse impacts(B) Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way.

City of Long Beach v. Los Angeles Unified Sch. Dist. (2009) 176 Cal. App. 4th 889 (2009), 916.

“Impermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR.”

Of course, the SR-710 Draft EIR/EIS does not have performance standards for potential significant impacts that it has yet to identify due to deferred design and analysis. While significant impact criteria might suffice for standards, these were not identified for many key technical areas. Collectively, these deficiencies have resulted in a very incomplete list of mitigation measures that do not meet minimum standards for an adequate EIR.

2014 CEQA Statutes and Guidelines, §5151. STANDARDS FOR ADEQUACY OF AN EIR : An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.

4. The Draft EIR/EIS fails to adequately address the Project Need for safety, and safety appears to have been compromised in order to achieve the desired performance and cost objectives.

In Section 1.2.2 (p. 1-8) of the Draft EIR/EIS, Volume 1, the Project Needs has been re-written as follows:

“The need for the project is described in detail in this section, based on consideration of the following factors:

- *Capacity, Transportation Demand, and Safety*
- *Social Demands or Economic Development*
- *Legislation*
- *Modal Interrelationships and System Linkages”*

Except for this ‘need statement’, the word ‘safety’ is never mentioned again in the 45-page description of Project Need. The entire Transportation Technical Report uses the word ‘safety’ only once.

For many of the technical areas, criteria were never established to determine what would be a safety ‘significant impact.’ Safety impacts were never compared side-by-side between the alternatives and their options to show relative safety risks. Moreover, inherent and permanent safety risks were not adequately addressed. This is extremely important for tunnel projects because safety risks can never be fully mitigated and loss of life can be very high. Decision-makers and the public must have this information to participate intelligently in the EIS process.

In addition, the Draft EIR/EIS contain the following specific safety deficiencies:

1. For the tunnel alternative, the Draft EIR/EIS fails to incorporate a reasonable array of safety options for mitigating vehicle accidents and fires, and lack multiple alternatives for egress and first responder tunnel access. Consequently significant risk is passed on to the tunnel users. The report fails to adequately address safety trades and tunnel design choices. Very minimal safety standards are accepted without explanation;

2. The Draft EIR/EIS limits the discussion of transportation safety to drivers of vehicles. Pedestrian and bicycle safety is largely ignored;
3. The Draft EIR/EIS limits the discussion of public health safety to cancer risks. Other health safety issues related to freeways were not discussed including asthma, lung disease, heart disease, etc.;

These three items are written as separate findings in Sections 3.24 (Construction), 3.5 (Traffic and Transportation / Pedestrian and Bicycle Facilities) and 3.13 (Air Quality), respectively.

In the SR-710 Draft Project Report¹, Attachment O, Project Risk Register, safety is listed as an active threat with a risk rating of 'High' and a probability of 40-59%. Specifically the risk description states "Project design to full standard may be too expensive to fund through public funds or tolling". It is apparent that the authors are talking about 'tunnel safety' here. In fact, they appear to be acknowledging the pressure (current and future) to compromise safety in order to meet cost constraints. The response to this risk is to "Discuss an alternative without compromising safety and performance"; however, it is apparent in our findings that safety has indeed been compromised, or at least been made a low priority.

Failure to fully address safety in the Draft EIR/EIS is in violation of the following NEPA regulations and guidelines, and CEQA statutes and guidelines:

NEPA 42 U.S.Code, Chapter 55, National Environmental Policy, §4321(a), Sec. 2.1.1 Purposes of NEPA: "(I)t is the continuing responsibility of the Federal government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may:(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences."

NEPA, 40 CFR §1508.27 Significantly: "Significantly as used in NEPA requires considerations of both context and intensity: b) **Intensity.** This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity: ... (2) The degree to which the proposed action affects public health or safety."

NEPA Deskguide, Sec. 6.7.2.2 Description of Proposed Action and Alternatives, Including No Action: "The EA should discuss both how well this alternative meets the purpose and need, and what its environmental impacts are (e.g., in terms of traffic, health and safety, social effects, etc.)."

2014 CEQA Statutes and Guidelines, §21000. LEGISLATIVE INTENT: "(d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the

¹ 'Draft Project Report to Authorize Public Release of the Draft Environmental Document', CH2MHill, March 3, 2015, 07-LA-710, PM 26.7/32.1T, EA: 07-187900, Project ID: 0700000191.

health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached”.

2014 CEQA Statutes and Guidelines, §15126.2 CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS: ... “Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include...health and safety problems caused by the physical changes.... and public services.