

## CHAPTER 5: CEQA FINDINGS OF SIGNIFICANCE

This chapter describes those environmental effects identified in Chapters 3 and 4 that would be considered significant under the California Environmental Quality Act (CEQA). Cumulative impacts are also described, and the potential for the project to stimulate unplanned growth is considered.

This combined environmental document complies with National Environmental Policy Act (NEPA) requirements for the preparation of an Environmental Assessment (EA), and with CEQA requirements for an Environmental Impact Report (EIR). Use of the term “significant” differs under these two laws. CEQA requires that an EIR include a determination of significant impacts, while under NEPA, an EA is prepared to determine whether a project will have a significant impact on the environment and, if no unmitigable significant impact would occur, then a Finding of No Significant Impact (FONSI) is made. Given these differences, the CEQA significance criteria and the determination of significant impacts have not been specifically addressed in other sections of this combined NEPA/CEQA EA/EIR. These criteria and determinations are grouped for discussion in this chapter.

It should be noted that although the presence of mitigation creates a presumption of significant impacts under CEQA, NEPA encourages mitigation for all of the impacts of a project. For this reason, some mitigation measures described in this document and in this section are wholly appropriate under NEPA, although the impacts they address may not be considered significant under CEQA.

### 5.1 SIGNIFICANCE CRITERIA

CEQA requires that an EIR identify the significant environmental effects of the project (CEQA Guidelines Section 15126), but does not promulgate specific thresholds for significance. Instead, CEQA Guidelines Section 15064(b) states that “the determination . . . calls for careful judgment on the part of the public agency involved . . .” and that “an ironclad definition of significant effect is not possible because the significance of an activity may vary with the setting.” CEQA encourages lead agencies to develop and publish their own thresholds of significance for the purpose of determining the significant effects of their projects. The fundamental definition of significant effect under CEQA is “a substantial adverse change in physical conditions.” This criterion underlies the evaluation of environmental impacts for most of the impact issues identified in the CEQA Environmental Checklist Form (Guidelines Appendix G).

Some impact categories lend themselves to scientific or mathematical analysis, and therefore to quantification. Some categories have significance thresholds established by regulatory agencies, such as the California Department of Conservation or the regional air quality management district. For other impact categories that are more qualitative or are entirely dependent on the immediate setting, a hard-and-fast threshold is not generally feasible, and the “substantial adverse change in physical conditions” is applied as the significance criterion. In the current analysis, the Joint Powers Board has given careful consideration to the issue of significance and

**CHAPTER 5: CEQA FINDINGS OF SIGNIFICANCE**

has applied the significance criteria shown in Table 5.1-1 to evaluate the significance of the effects of the Caltrain Electrification Program under CEQA.

CEQA does not require a discussion of socioeconomic effects except where they would result in physical changes, and states that social or economic effects shall not be treated as significant effects (see CEQA Guidelines Sections 15064(f) and 15131). Given also that the Electrification Program will not have socioeconomic effects that either cause or result from physical changes, socioeconomic impact categories are not included in Table 5.1-1.

<b>Table 5.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories</b>			
<b>EA/DEIR Sec. Nos.</b>	<b>Impact Category</b>	<b>Explanation of CEQA Significance Threshold</b>	<b>Source(s)</b>
3.1	Aesthetics	The project would have a significant effect on the environment if it would (a) have a substantial adverse effect on a scenic vista; (b) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; (c) substantially degrade the existing visual character or quality of the site and its surroundings; or (d) create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.	State CEQA Guidelines, Appendix G Checklist
3.2	Agricultural Resources	The project would have a significant effect on the environment if it would (a) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; (b) conflict with existing zoning for agricultural use, or a Williamson Act contract; (c) involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.	State CEQA Guidelines Appendix G Checklist
3.3, 4.2	Air Quality	A significant impact would occur if the project would violate any ambient air quality standard (NAAQS or CAAQS); increase the number or frequency of violations; contribute substantially to an existing or projected air quality violation; conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or create objectionable odors affecting a substantial number of people.	State CEQA Guidelines, Appendix G Checklist; US EPA; BAAQMD

**Table 5.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories**

EA/DEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
3.4	Biological Resources	A significant impact would occur if the project would (a) have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations or by the California Department of Fish and Game (CDFG) or the U.S. Fish and Wildlife Service (USFWS); b) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by CDFG or USFWS; (c) have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act; (d) interfere substantially with the movement of native resident or migratory fish or wildlife species, wildlife corridors, or wildlife nursery sites; (e) conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; (f) conflict with the provisions of an approved local, regional, or state habitat conservation plan.	State CEQA Guidelines, Appendix G Checklist
3.5	Cultural & Historic Resources	A significant impact would occur if the project would cause a substantial adverse change in the significance of a historical or archaeological resource as defined in Public Resources Code Section 15064.5; directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or disturb any human remains, including those interred outside of formal cemeteries. No quantitative threshold exists.	State CEQA Guidelines, Appendix G Checklist, and CEQA Sec. 21084.1.

<b>Table 5.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories</b>			
<b>EA/DEIR Sec. Nos.</b>	<b>Impact Category</b>	<b>Explanation of CEQA Significance Threshold</b>	<b>Source(s)</b>
3.6	Geology/ Seismicity	A significant impact would occur if the project would (a) expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; (iv) landslides; (b) result in substantial soil erosion or loss of topsoil; (c) be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or (d) be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	State CEQA Guidelines, Appendix G Checklist
3.7	Hazards and Hazardous Materials	A significant impact would occur if the project would (a) create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials; (b) create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; (c) emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school; (d) be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, created significant hazard to the public or the environment; (e) result in a safety hazard for people residing or working in the project vicinity; (f) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; (g) expose people or structures to a significant risk of loss, injury or death involving wildland fires.	Derived from State CEQA Guidelines, Appendix G Checklist

<b>Table 5.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories</b>			
<b>EA/DEIR Sec. Nos.</b>	<b>Impact Category</b>	<b>Explanation of CEQA Significance Threshold</b>	<b>Source(s)</b>
3.8	Hydrology, Floodplain, Water Quality	A significant impact would (a) violate any water quality standards or waste discharge requirements; (b) substantially deplete groundwater supplies or interfere substantially with groundwater recharge; (c) substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site; (d) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site; (e) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (f) otherwise substantially degrade water quality.	State CEQA Guidelines, Appendix G Checklist
3.9	Land Use and Planning	A significant impact would occur if the project would (a) physically divide an established community; (b) conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project; or (c) conflict with any applicable habitat conservation plan or natural community conservation plan.	State CEQA Guidelines Appendix G Checklist
3.10	Mineral and Energy Resources	A significant impact would occur if the project would (a) result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or (b) result in the loss of availability of a locally-important mineral resource recover site delineated on a local general plan, specific plan, or other land use plan.  A significant impact would occur if the project would result in a substantial increase in energy consumption to the extent that energy generation capacity is exceeded, based on currently available projections, or unacceptable demands are placed on energy supply and distribution systems.	State CEQA Guidelines, Appendix G Checklist
3.11	Noise and Vibration	A significant noise impact would occur if the project would result in (a) exposure of persons to or generation of noise levels in excess of standards established in local general plans or noise ordinances; (b) exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels (vibration of 75 VdB is generally considered intrusive for residential	State CEQA Guidelines, Appendix G Checklist, FTA Noise and Vibration Criteria

<b>Table 5.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories</b>			
<b>EA/DEIR Sec. Nos.</b>	<b>Impact Category</b>	<b>Explanation of CEQA Significance Threshold</b>	<b>Source(s)</b>
		uses); (c) a substantial permanent increase in ambient noise in the project vicinity (an increase of 10 db, perceived as a doubling of noise, is generally considered substantial); (d) a substantial temporary or periodic increase in ambient noise levels in the project vicinity.	
3.12	Population and Housing	A significant impact would occur if the project would (a) induce substantial population growth in an area, either directly or indirectly; (b) displace substantial numbers of existing housing units or people, necessitating the construction of replacement housing elsewhere.	State CEQA Guidelines, Appendix G Checklist
3.13, 3.16	Public Services and Facilities	A significant impact would occur if the project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, or other public facilities.	State CEQA Guidelines Appendix G Checklist
3.14	Recreation	A significant impact would occur if the project would (a) increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; (b) include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	State CEQA Guidelines Appendix G Checklist
3.15	Transportation/Traffic	A significant impact would occur if the project would (a) cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system; (b) exceed, either individually or cumulatively, a level of service standard established by the local county congestion management agency; (c) substantially increase hazards due to a design feature; (d) result in inadequate emergency access; (e) result in inadequate parking capacity; (f) conflict with adopted policies, plans, or programs supporting alternative transportation.	State CEQA Guidelines Appendix G Checklist.

Table 5.1-1: CEQA Significance Threshold for Selected Environmental Impact Categories			
EA/DEIR Sec. Nos.	Impact Category	Explanation of CEQA Significance Threshold	Source(s)
3.17	Electromagnetic Fields and Electromagnetic Interference	A significant impact would occur if the project would (a) increase the ambient electromagnetic field strengths (AC) to a level where demonstrated adverse human health effects are likely to result; (b) cause substantial interference and disruption of other electronic devices, resulting in substandard performance.	Peninsula Corridor Joint Powers Board
Chapter 4	Temporary Construction Period Effects	Construction phase impacts on traffic, transit, noise, air quality, and the visual environment would generally not be considered significant since construction-related changes are by their nature temporary. A significant impact would occur only if temporary effects substantially affected accessibility to an area for a long period of time, caused the loss or relocation of substantial numbers of businesses or residences, or posed a severe health or safety threat.	Derived from State CEQA Guidelines, Section 15382

**Source:** Parsons Transportation Group and other sources as noted, December 2001.

## 5.2 UNAVOIDABLE SIGNIFICANT ADVERSE EFFECTS UNDER CEQA

With the mitigation measures identified in Chapters 3 and 4 of this document, no unavoidable significant impacts would result from the proposed project.

## 5.3 CUMULATIVE EFFECTS

CEQA defines cumulative impacts as “two or more individual effects which, when considered together are considerable,” and suggests that cumulative impacts may “result from individually minor but collectively significant projects taking place over a period of time” (State CEQA Guidelines Section 15355). CEQA documents are required to include a discussion of potential cumulative effects *when those effects are significant* and the State CEQA Guidelines suggest two possible methods for assessing potential cumulative effects (State CEQA Guidelines Section 15130). The first method is a list-based approach, which considers a list of past, present, and reasonably foreseeable future projects producing related or cumulative impacts. The second method is projections-based and uses a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or areawide conditions. The projections-based method is generally used by JPB in evaluating projects within its jurisdiction.

While the use of regional projections is one possible method of analyzing cumulative effects under CEQA, it is the required method under NEPA. FTA guidelines require that regional growth projections from the metropolitan planning organization (MTC in this case) be used as input for the assumed future year conditions.

Since both NEPA and CEQA require discussion of cumulative effects, the cumulative impacts evaluated for this project are described in Section 3.18. No significant cumulative impacts were identified.

#### **5.4 GROWTH INDUCEMENT**

CEQA requires a consideration of a project's capacity to induce growth. Growth inducement would occur if the amount of population or employment growth projected to occur as a result of the project would exceed planned levels. Increased development and growth in an area are dependent on a variety of factors, including employment and other opportunities, availability of developable land, and availability of infrastructure, water, and power resources.

A growth inducement analysis was conducted for the Electrification Program Alternative, as described in Section 3.12.4. This analysis determined that, although the proposed project would result in travel time savings of up to 8 minutes, it would have virtually no effect on the overall growth pressures in the project corridor. Because Caltrain serves only developed areas within a well-established rail corridor and does not extend this corridor or provide access to undeveloped areas, the reduced travel times would not materially induce growth.