

Environmental Analysis



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4.1



INTRODUCTION

The sections in this chapter provide updated information on the environmental setting, regulatory setting, and project impacts and mitigation measures applicable to the BART Extension Project at the Preliminary Engineering design phase 35 percent design level. The analysis presented herein covers only the updated information and design changes that would result in potential environmental impacts. The FEIR discusses other design features, environmental impacts, and mitigation measures that continue to be applicable.

4.1.1 **CEQA THRESHOLDS OF SIGNIFICANCE**

The thresholds of significance included in the FEIR apply to the analysis in the SEIR. Table 4-1 lists these thresholds for each section in this chapter. The regulatory setting for CEQA thresholds of significance is provided in the FEIR, Section 6.2.1.

see table on next page >>

TABLE 4.1-1:

Thresholds of Significance for the BART Extension Project			
SEIR SECTION #	ENVIRONMENTAL ISSUE	THRESHOLD OF SIGNIFICANCE	SOURCE
4.2	Transportation and Transit	<p>Cause a Congestion Management Program facility intersection's level of service to deteriorate from LOS E (when compared to No Action).</p> <p>Cause an increase in the critical volume delay by 4 seconds or more, and increase the critical V/C ratio by 0.01 or more at a Congestion Management Program facility intersection already operating at LOS F under No Action conditions.</p> <p>Cause a local intersection's level of service to deteriorate from LOS D (when compared to the No Action).</p> <p>Cause an increase in the critical volume delay by 4 seconds or more, and increase the critical V/C ratio by 0.01 or more at a local intersection already operating at LOS E or F under No Action conditions.</p> <p>Result in a change of two letter grades at an intersection operating at LOS A or B under No Action conditions.</p> <p>Add new trips totaling more than 1 percent of the freeway capacity if a freeway segment is already operating at LOS F.</p> <p>Cause a substantial increase in regional VMT or VHT.</p> <p>Cause a substantial diversion of traffic onto a residential street.</p> <p>Substantially disrupt traffic operations and/or substantially affect emergency vehicle response.</p>	VTA; CEQA Guidelines, Appendix G Checklist; Cities of Milpitas, San Jose, and Santa Clara
	Parking	<p>Result in a loss of parking spaces such that the loss results in substantial adverse economic impacts to businesses in the area.</p> <p>Construct a park-and-ride lot where demand is projected to be 105 percent or more of the lot's planned capacity.</p>	VTA
	Pedestrian and Bicycle Accessibility	<p>Create particularly hazardous conditions for bicyclists or eliminate bicycle facilities, and eliminate adequate facilities to serve the community's needs.</p> <p>Result in substantial overcrowding on public sidewalks, create hazardous conditions for pedestrians, or eliminate pedestrian access to adjoining areas.</p>	VTA; CEQA Guidelines, Appendix G Checklist
4.3	Air Quality	<p>Conflict or obstruct implementation of the federal or California CAA.</p> <p>Violate federal or California air quality standards or contribute substantially to an existing or projected air quality violation.</p> <p>Exceed the BAAQMD's significance criteria.</p> <p>Expose sensitive receptors to substantial pollutant concentrations.</p> <p>Create objectionable odors affecting a substantial number of people.</p> <p>Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as nonattainment under an applicable federal or California ambient air quality standard.</p>	BAAQMD; CEQA Guidelines, Appendix G Checklist
4.4	Biological Resources and Wetlands	<p>Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in regional plans, policies, or regulations, or by USFWS, NOAA Fisheries, or CDFG.</p> <p>Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in regional plans, policies, regulations, or by USFWS, NOAA Fisheries, or CDFG.</p> <p>Have a substantial adverse effect on state waters or on federally protected wetlands, as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means.</p> <p>Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridor(s), or impede the use of native wildlife nursery sites.</p> <p>Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved regional or state HCP.</p>	VTA; CEQA Guidelines, Appendix G Checklist

SEIR SECTION #	ENVIRONMENTAL ISSUE	THRESHOLD OF SIGNIFICANCE	SOURCE
4.5	Community Services and Facilities	Result in the need for new or physically altered governmental facilities so as to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: fire protection, police protection, schools, parks, and other public facilities.	CEQA Guidelines, Appendix G Checklist
4.6	Cultural and Historic Resources	<p>Cause a substantial adverse change in the significance of a historical resource, as defined in CEQA Guidelines Section 15064.5 or federal regulations and guidelines.</p> <p>Cause a substantial adverse change in the significance of an archaeological resource, pursuant to CEQA Guidelines Section 15064.5 or federal regulations and guidelines.</p> <p>Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p> <p>Disturb any human remains, including those interred outside of formal cemeteries.</p>	CEQA Guidelines, Appendix G Checklist
4.7	Electromagnetic Fields	Result in DC magnetic fields that exceed the guidelines of the ACGIH.	ACGIH
4.8	Energy	<p>Lead to a wasteful, inefficient, and unnecessary usage of energy.</p> <p>Place a substantial demand on regional energy supply or require substantial additional capacity.</p> <p>Significantly increase peak and base period electricity demand.</p>	VTA
4.9	Geology, Soils, Seismicity	Expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving; rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure including liquefaction; lateral spreading, subsidence, and collapse as a result of underlying unstable geologic units; or expansive soil.	VTA; CEQA Guidelines, Appendix G Checklist
4.10	Hazardous Materials	<p>Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p> <p>Emit hazardous emissions, or handle hazardous materials or waste, within 1/4-mile of an existing or proposed school.</p> <p>Be located on a site that is included on a list of hazardous materials sites and, as a result, create a significant hazard to the public or the environment.</p> <p>Create a potential hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</p>	CEQA Guidelines, Appendix G Checklist
4.11	Land Use	<p>Physically divide an established community.</p> <p>Conflict with applicable regional plans and policies.</p> <p>Be incompatible with existing adjacent uses such that it would cause adjacent land uses to make extensive operational adjustments that would reduce the efficiency or effectiveness of such land uses.</p>	VTA; CEQA Guidelines, Appendix G Checklist
		<p>Convert prime farmland, unique farmland, or farmland of statewide importance, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.</p> <p>Conflict with existing zoning for agricultural use or a Williamson Act contract.</p> <p>Involve other changes in the existing environment, which, due to either location or nature, could result in conversion of farmland to non-agricultural use.</p>	CEQA Guidelines, Appendix G Checklist
4.12	Noise and Vibration	<p>Contribute to a cumulative increase in noise levels that would be considered a severe impact according to FTA criteria.</p> <p>Result in vibration levels that exceed FTA criteria.</p> <p>Operational noise exceeds the BART design criteria.</p> <p>Ground-borne vibration from operations exceeds the BART design criteria.</p>	FTA Noise and Vibration Criteria

SEIR SECTION #	ENVIRONMENTAL ISSUE	THRESHOLD OF SIGNIFICANCE	SOURCE
4.14	Socioeconomics	<p>Disrupt or divide the physical arrangement of an established community such that social interaction within the community is severely hampered.</p> <p>Substantially affect the population, household, or community characteristics of the project study area in a negative way, or impede or detract from efforts to economically revitalize the study area.</p> <p>Induce substantial growth in an area either directly (e.g., by proposing new homes or buildings) or indirectly (e.g., through extension of roads or infrastructure) not in accordance with existing community or city plans.</p> <p>Displace existing businesses or housing, especially affordable housing.</p>	VTA; CEQA Guidelines
4.15	Utilities	<p>Result in the construction of new storm water drainage facilities or the expansion of existing facilities that could cause significant environmental effects.</p> <p>Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that could cause significant environmental effects.</p>	CEQA Guidelines, Appendix G Checklist
4.16	Visual Quality and Aesthetics	<p>Substantially damage scenic resources within a state scenic highway including, but not limited to, trees, rock outcroppings, and historic buildings.</p> <p>Substantially degrade the existing visual character or quality of the site and its surroundings.</p> <p>Have a substantial adverse effect on a scenic vista.</p> <p>Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.</p>	CEQA Guidelines, Appendix G Checklist
4.17	Water Resources, Water Quality, and Floodplains	<p>Violate any water quality standards or waste discharge requirements.</p> <p>Substantially deplete water resources.</p> <p>Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.</p> <p>Place structures within a 100-year flood hazard area that would impede or redirect flood flows.</p> <p>Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.</p> <p>Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.</p>	CEQA Guidelines, Appendix G Checklist
4.18	Construction: Transportation and Traffic	<p>Result in the long-term (1 month or more) closure of a street, or the closure of a lane or other interference of traffic flow on any major traffic-carrying street, or the diversion of traffic through residential areas.</p> <p>Result in long-term (3 months or more) disruption of parking or pedestrian access that is essential for continued operation of business.</p>	VTA
	Construction: Air Quality	Fail to implement Best Management Practices for construction-related activities, as recommended by the BAAQMD.	BAAQMD
	Construction: Biological Resources and Wetlands	Substantially affect sensitive species or habitats, including natural communities and federally protected wetlands	VTA
	Construction: Cultural and Historic Resources	Demolish or materially alter a significant historical, archaeological, or paleontological resource.	VTA
	Construction: Hazardous Materials	Create a potential public or environmental health hazard or an undue potential risk for health-related accidents, or result in a safety hazard for people residing or working in the project area.	VTA
	Construction: Land Use	Disrupt a business for a period of three months or more.	VTA
	Construction: Noise and Vibration	<p>Cause a substantial temporary or periodic increase in ambient noise levels.</p> <p>Result in noise or vibration levels that exceed FTA criteria.</p>	<p>VTA</p> <p>FTA Noise and Vibration Criteria</p>

SEIR SECTION #	ENVIRONMENTAL ISSUE	THRESHOLD OF SIGNIFICANCE	SOURCE
4.18	Construction: Utilities	Disrupt utility service for a period of 24 hours or more.	VTA
	Construction: Water Resources, Water Quality, and Floodplains	Substantially affect surface water or groundwater quality, or alter surface runoff rates thereby contributing to flooding or erosion hazards.	VTA

NOTES:

ACGIH = American Conference of Governmental Industrial Hygienists

BAAQMD = Bay Area Air Quality Management District

BART = Bay Area Rapid Transit

CAA = Clean Air Act

CDFG = California Department of Fish and Game

CEQA = California Environmental Quality Act

CWA = Clean Water Act

DC = direct current

HCP = Habitat Conservation Plan

LOS = level of service

NOAA Fisheries = National Oceanic and Atmospheric Administration Fisheries Service

USEFS = U.S. Fish and Wildlife Service

V/C = volume-to-capacity

VHT = vehicle hours traveled

VMT = vehicle miles traveled

VTA = Santa Clara Valley Transportation Authority

Source: Silicon Valley Rapid Transit Corridor - BART Extension to Milpitas, San Jose and Santa Clara - Final Environmental Impact Report (November 2004).

