

Chapter 4 California Environmental Quality Act Evaluation

4.1 Introduction

This chapter constitutes the CEQA impact evaluation for the project (see Chapter 3, Affected Environment; Environmental Consequences; and Avoidance, Minimization, and/or Mitigation Measures for the NEPA evaluation). Determining and documenting whether a project may have a significant effect on the environment plays a critical role in the CEQA process. CEQA requires lead agencies to know what constitutes a significant effect on the environment and whether mitigation measures are available to reduce a significant effect to a less-than-significant level. CEQA also requires mitigation of all significant effects on the environment to the extent feasible.

4.2 Determining Significance under CEQA

The project is subject to federal and State environmental review requirements because STA proposes the use of federal funds and/or the project requires a federal approval action. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. STA is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an EIS, or some lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to “significantly affect the quality of the human environment.” The NEPA determination of significance is based on context and intensity; CEQA is based on a similar concept—the environmental setting. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require the lead agency to identify each “significant effect on the environment” resulting from the project and 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 feasible. In addition, the CEQA Guidelines list a number of mandatory findings of significance, which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

The CEQA Environmental Significance Checklist (Appendix A) identifies physical, biological, social, and economic factors that might be affected by the project. The findings for the CEQA checklist were determined in consultation with the technical studies prepared for this document and the analysis provided in Chapter 3. The CEQA impact levels include:

- **No Impact:** This level of significance is used for impacts where there is clearly no impact.
- **Less than Significant:** This level of significance is used for impacts where there would be an impact, but the degree of the impact would not meet or exceed the identified thresholds.
- **Less than Significant with Mitigation Incorporated:** This level of significance is used for impacts that would meet or exceed the identified thresholds but would be reduced to a less-than-significant level through the implementation of mitigation measures.
- **Significant and Unavoidable:** This level of significance describes significant impacts for which mitigation to reduce the significant impact to a less-than-significant level is not available or feasible.

4.3 Discussion of Significant Impacts and Mitigation Under CEQA

4.3.1 Significant Environmental Effects of the Project

The project (including all build alternatives) would not have any significant environmental effects upon implementation of mitigation measures. Chapter 3 describes the various environmental settings that may be affected by the Jepson Parkway Project.

4.3.2 Mitigation Measures for Significant Impacts Under CEQA

The CEQA Checklist identified the following items as “less than significant with mitigation incorporated.” These items are identified below, along with the required mitigation to reduce the impact to a less-than-significant level. The title of the required mitigation is identified below; the full text of most mitigation measures can be found in each respective section of Chapter 3. Potential impacts to agricultural resources and cultural resources would only be considered “less than significant with mitigation incorporated” under CEQA. Therefore, mitigation measures for agricultural resources and cultural resources are fully described in this section only.

4.3.2.1 Aesthetics

- 1) Have a substantial adverse effect on a scenic vista?
- 3) Substantially degrade the existing visual character or quality of the site and its surroundings?
- 4) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Implementation of the following mitigation measures would reduce the adverse visual effects of the build alternatives to a less-than-significant level:

- Mitigation Measure VIS-1: Install Temporary Visual Barriers between Construction Staging Areas and Residences.
- Mitigation Measure VIS-2: Prepare and Implement a Lighting Plan.
- Mitigation Measure VIS-3: Construct Walls and Barriers with Low-Sheen and Non-Reflective Surface Materials.
- Mitigation Measure VIS-4: Incorporate Design Characteristics to Minimize Visual Obtrusion.
- Mitigation Measure VIS-5: Provide Aesthetic Treatments to All Noise Barriers.

4.3.2.2 Agricultural Resources

- 1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Mitigation Measure FA-1: Compensate for Conversion of Important Farmland, including Prime Farmland. To compensate for the conversion of important farmland, the project sponsors could purchase permanent agricultural easements or provide funds to an agricultural land trust. Two examples are provided below:

- The project sponsors shall purchase permanent agricultural easements from willing sellers along one or both sides of Vanden Road within the Vacaville/Fairfield community separator/greenbelt, as designated in the Vacaville and Fairfield general plans, or east of Leisure Town Road. Agricultural easements would allow farmlands to remain in agricultural use and to be owned and managed by private landowners. To the extent possible, agricultural easements shall be established on properties with farmland similar in quality to the farmland converted by Alternatives B, C, D, or E. Easement acquisitions shall be large enough (e.g., 160 acres) to allow for continued viable grazing uses of properties. Potential costs for easement purchases have been estimated to range from \$2,000 to \$10,000 per acre. Under the easement agreements, the Solano Land Trust could be designated as the entity to hold easement and development rights.
- The project sponsors shall provide funds to the Agricultural Land Stewardship Program operated by the DOC or the Solano Land Trust in an amount adequate to purchase agricultural easements on farmland similar in quality to the farmland converted by the project. Purchasing agricultural easements would compensate for project-related conversions by permanently protecting agricultural lands. Funds provided to a local land trust shall be targeted for purchasing easements on farmland along the corridor.

For Prime Farmland, Farmland of Statewide Importance, or Unique Farmland converted in the City of Fairfield, the project sponsors would be required to participate in Fairfield’s agricultural mitigation program. Fairfield requires either (a) conservation of an equivalent amount of impacted farmland; or (b) payment of \$12,000 per acre of converted farmland.

No federal funds would be used to mitigate for impacts to farmlands.

4.3.2.3 Air Quality

- 2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- 3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
- 4) Expose sensitive receptors to substantial pollutant concentrations?

Implementation of the following mitigation measures would reduce the adverse air quality effects of the build alternatives to a less-than-significant level:

- Mitigation Measure AQ-1: Implement Construction Mitigation Measures to Reduce Construction Equipment Exhaust Emissions.
- Mitigation Measure AQ-2: Implement Construction Mitigation Measures to Reduce Construction Emissions, as Required by the BAAQMD.

4.3.2.4 Biological Resources

- 1) 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 or U.S. Fish and Wildlife Service?
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- 3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Implementation of the following mitigation measures would reduce the adverse biological effects of the build alternatives to a less-than-significant level:

- Mitigation Measure BR-1: Avoid and Minimize Potential Indirect Disturbance of Riparian Communities.
- Mitigation Measure BR-2: Compensate for Permanent Loss of Riparian Communities.
- Mitigation Measure BR-3: Plant Native Trees in Rural Landscaping Areas.
- Mitigation Measure BR-4: Obtain and Comply with Conditions of Clean Water Act Permits and Streambed Alteration Agreement.
- Mitigation Measure BR-5: Implement Measures to Protect Water Quality.
- Mitigation Measure BR-6: Avoid and Minimize Disturbance of Waters of the United States and Nonjurisdictional Wetlands.
- Mitigation Measure BR-7: Design Roadway to Maintain Natural Hydrology.
- Mitigation Measure BR-8: Compensate for the Permanent and Temporary Filling of Seasonal Wetland, Freshwater Marsh, and Pond.
- Mitigation Measure BR-9: Compensate for the Permanent and Temporary Filling of Other Waters of the United States.
- Mitigation Measure BR-10: Conduct a Biological Resources Education Program for Construction Crews and Enforce Construction Restrictions.
- Mitigation Measure BR-11: Retain a Biologist to Monitor Construction Activities.
- Mitigation Measure BR-12: Install Construction Barrier Fencing around the Construction Area.
- Mitigation Measure BR-13: Minimize Potential Impacts on Special-Status Plant Species during Construction.
- Mitigation Measure BR-14: Compensate for Loss of Pappose Spikeweed.
- Mitigation Measure BR-15: Construct the Walters Road Extension on an Elevated Structure.
- Mitigation Measure BR-16: Conduct Preconstruction Surveys for Western Pond Turtle.
- Mitigation Measure BR-17: Conduct Preconstruction Surveys for Active Burrowing Owl Burrows and Implement the CDFG Guidelines for Burrowing Owl Mitigation, if Necessary.
- Mitigation Measure BR-18: Implement the CDFG Guidelines for Swainson's Hawk Foraging Habitat Mitigation and Conduct Preconstruction Surveys for Nesting Swainson's Hawks.
- Mitigation Measure BR-19: Avoid Disturbance of Nesting Special-Status and Non-Special-Status Migratory Birds and Raptors.
- Mitigation Measure BR-20: Revise Project Plans to Avoid Contra Costa Goldfields.
- Mitigation Measure BR-21: Compensate for the Permanent Loss of Contra Costa Goldfields.

- Mitigation Measure BR-22: Minimize Potential Impacts on Listed Vernal Pool Branchiopods and Delta Green Ground Beetle.
- Mitigation Measure BR-23: Compensate for Permanent Losses of Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Habitat and Delta Green Ground Beetle.
- Mitigation Measure BR-24: Compensate for Impacts on Valley Elderberry Longhorn Beetle.
- Mitigation Measure BR-25: Minimize Potential Impacts on California Tiger Salamanders.
- Mitigation Measure BR-26: Compensate for Removal and Disturbance of California Tiger Salamander Habitat.
- Mitigation Measure BR-27: Educate Construction Crews on Invasive Species Control and Prevention, and Monitor Compliance.
- Mitigation Measure BR-28: Implement Revegetation and Restoration Measures Required in the Storm Water Pollution Prevention Plan.

4.3.2.5 Cultural Resources

- 2) Create a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?
- 3) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
- 4) Disturb any human remains, including those interred outside of formal cemeteries?

Although investigations in the APE have not identified any archaeological resources, areas of low-lying alluvial terrace deposits associated with drainages have the potential to contain previously unidentified buried resources. Construction and staging activities in these areas have some potential to disturb buried, undiscovered archaeological sites and human remains. Specific areas within the APE that have a high potential for the presence of buried resources and that would require monitoring are listed below:

- The drainage of Union Creek, which extends between the two ranges of hills;
- The sandy loam alluvial terrace soils south of the site along Vanden Road used by the Travis Unified School District (TUSD) for vehicle storage to the intersection of Cement Hill Road, Vanden Road, and Peabody Road;
- The low-lying alluvial terrace deposits from Peabody Road to Air Base Parkway associated with three small drainages that lead into McCoy Creek; and
- The alluvial fan deposits surrounding Old Ulatis Creek and Alamo Creek and the unnamed tributaries between Orange Drive and the intersection of Cement Hill Road, Vanden Road, and Peabody Road.

Mitigation Measures CR-1, CR-2, and CR-3 would reduce this potential effect to a less-than-significant level.

Mitigation Measure CR-1: Monitor Construction Activities within Area of Potential Effect Segments Designated Highly Sensitive for the Presence of Buried Archaeological Resources. An archaeological monitor shall be present full-time during all subsurface construction activities within the APE segments designated highly sensitive for the presence of buried archaeological resources. A daily log shall be completed by the archaeological monitor. Information to be recorded shall include the date, names of monitors, engineering stations of construction monitored, and a narrative report of the day's activities in which cultural resource problems and concerns are recorded. The archaeological monitor shall maintain a file of the forms, and copies shall be made available to the resident engineer and environmental coordinator on a weekly basis.

The archaeological monitor shall have the authority to temporarily halt all construction operations within 100 feet of a find or resource exposure to determine whether adverse or potentially adverse historic properties are present and whether they would be adversely affected by continuing construction operations. The archaeological monitor shall give immediate notification of such decisions to the appropriate authorities, including the construction foreman, resident engineer, segment manager, and principal investigator. Work may continue or be redirected to other locations outside the temporarily halted construction zone.

Mitigation Measure CR-2: Stop Work if Archaeological Materials Are Discovered during Construction. If archaeological materials (e.g., chipped or ground stone, historic debris, building foundations, or nonhuman bone) are inadvertently discovered during ground-disturbing activities, the construction contractor shall stop work in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and develop appropriate treatment measures. Treatment measures shall be made in consultation with STA, FHWA, SHPO, and other consulting parties to the NHPA Section 106 review process. Treatment measures typically include development of avoidance strategies or mitigation of impacts through data-recovery programs such as excavation or detailed documentation. If cultural resources are discovered during construction activities, the construction contractor and lead contractor compliance inspector shall verify that work is halted until appropriate treatment measures are implemented.

Mitigation Measure CR-3: Stop Work if Human Remains Are Discovered during Construction. If human remains of Native American origin are discovered during ground-disturbing activities, it is necessary for STA and FHWA to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (PRC 5097). If human remains are discovered or recognized in any location other than a dedicated cemetery, STA and FHWA will not allow further excavation or disturbance within 328.1 feet of the find or any nearby area reasonably suspected to overlie adjacent human remains until both of the following occur:

- The County Coroner has been informed and has determined that no investigation of the cause of death is required.

- If the remains are of Native American origin:
 - The descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98, or
 - NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the NAHC.

4.3.2.6 Hazardous Materials

- 1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 2) 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?

Implementation of the following mitigation measures would reduce the potentially significant hazardous materials impacts of the build alternatives to a less-than-significant level:

- Mitigation Measure HAZ-1: Develop a Health and Safety Plan to Address Worker Health and Safety.
- Mitigation Measure HAZ-2: Perform Additional Literature Review to Identify Potential for Historical Contamination.
- Mitigation Measure HAZ-3: Conduct Soil Sampling and Analysis to Identify and Remove Contaminated Soil.
- Mitigation Measure HAZ-4: Conduct Sampling, Testing, Removal, Storage, Transportation, and Disposal of Yellow Striping along Existing Roadway.
- Mitigation Measure HAZ-5: Conduct Sampling and Analysis of Transformer Fluid from Electrical Transformers.
- Mitigation Measure HAZ-6: Conduct Testing for Aerially Deposited Lead in Surface and Near-Surface Soils.
- Mitigation Measure HAZ-7: Time Construction to Avoid Exposure of Construction Workers to Respiratory Irritants from Aerially Applied Chemicals.
- Mitigation Measure HAZ-8: Test Soil and Groundwater at LUST and UST sites and Remove Contaminated Soil.
- Mitigation Measure HAZ-9: Phase 2 Environmental Site Assessments (ESA).

4.3.2.7 Hydrology and Water Quality

- 1) Violate any water quality standards or waste discharge requirements?
- 3) Substantially alter the drainage patterns of the site or area, including through the alteration of a stream or river, which would result in substantial erosion or siltation on- or off-site?
- 4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?
- 5) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- 6) Otherwise substantially degrade water quality?
- 8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Implementation of the following mitigation measures would reduce the potentially significant hydrology impacts of the build alternatives to a less-than-significant level:

- Mitigation Measure HYD-1: Prepare Detailed Master Drainage Plan (MDP) and Implement Plan Requirements.
- Mitigation Measure HYD-2: Improve Undersized Culverts.

4.3.2.8 Noise

- 1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Implementation of the following mitigation measures would reduce the adverse noise effects of the build alternatives to a less-than-significant level:

- Mitigation Measure N-1: Employ Noise-Reduction Construction Measures.
- Mitigation Measure N-2: Prohibit Nighttime Construction Activities.
- Mitigation Measure N-3: Disseminate Essential Information to Residences and Implement a Complaint/Response Tracking Program.

4.3.3 Significant and Irreversible Environmental Changes

Section 15126(f) of the State CEQA Guidelines provides the following direction for the discussion of irreversible changes:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvements which provides access to a previously inaccessible area, generally commit future generations to

similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to ensure that current consumption is justified.

All of the alternatives would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels (e.g., fuel, oil, natural gas, and gasoline) for construction equipment, as well as consumption or destruction of other nonrenewable and slowly renewable resources (e.g., gravel, metals, and water). Alternative B would also result in the permanent conversion of open space to developed land uses (i.e., roadway facilities). This conversion would represent an irreversible commitment of land to another land use.

4.4 Climate Change

4.4.1 Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas¹ (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the State level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations will apply to automobiles and light trucks beginning with the 2009 model year.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs State agencies to begin implementing AB 32, including the recommendations made by the State's Climate Action Team.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change.

¹ Greenhouse gases related to human activity include: Carbon dioxide, Methane, Nitrous oxide, Tetrafluoromethane, Hexafluoroethane, Sulfur hexafluoride, HFC-23, HFC-134a*, and HFC-152a*.

4.4.2 Affected Environment

According to a recent white paper by the Association of Environmental Professionals,² “an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases

Caltrans and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California’s GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, Caltrans has created and is implementing the *Climate Action Program at Caltrans* (December 2006).

One of the main strategies in the Caltrans Climate Action Program to reduce GHG emissions is to make California’s transportation system more efficient. The highest levels of carbon dioxide from mobile sources, such as automobiles, occur at stop-and-go speeds (0-25 miles per hour) and speeds over 55 mph. Relieving congestion by enhancing operations and improving travel times in high congestion travel corridors will lead to an overall reduction in GHG emissions.

Caltrans recognizes the concern that carbon dioxide emissions raise for climate change. However, modeling and gauging the impacts associated with an increase in GHG emissions levels, including carbon dioxide, at the project level is not currently possible. No federal, State or regional regulatory agency has provided methodology or criteria for GHG emission and climate change impact analysis. Therefore, Caltrans is unable to provide a scientific or regulatory based conclusion regarding whether the Jepson project’s contribution to climate change is cumulatively considerable.

Caltrans continues to be actively involved on the Governor’s Climate Action Team as ARB works to implement AB 1493 and AB 32. As part of the *Climate Action Program at Caltrans* (December 2006), the Department is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity, developing transit-oriented communities, and high density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land use planning authority. Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars, light and heavy-duty trucks. However, it is important to note that the control of the fuel economy standards is held by the United States Environmental Protection Agency and ARB. Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California Davis.

² Hendrix, Micheal and Wilson, Cori. Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents (March 5, 2007), p. 2.

4.5 Environmentally Superior Alternative

NEPA requires that the environmentally preferable alternative be identified from among the range of alternatives considered in an EIS. In NEPA terms, the environmentally preferable alternative is the alternative that causes the least damage to the environment and best protects natural and cultural resources. Similarly, CEQA recommends that an environmentally superior alternative be selected among the alternatives that were analyzed in an EIR. CEQA does not provide a definition for the environmentally superior alternative; in general, the environmentally superior alternative is defined as the alternative with the least adverse impacts on the project site and its surrounding environment while still achieving the project objectives.

Sections 21002 and 21081 of CEQA require lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible.

Since Alternative A would not involve new construction or result in any of the improvements proposed under the build alternatives, it would not result in any physical effects to the environment. However, Alternative A would be inconsistent with the adopted local and regional plans in that it would not provide road and other transportation improvements needed to support proposed land uses. In addition, without the project, traffic congestion would increase and roadway safety would decrease. Therefore, Alternative A is not the Environmentally Superior Alternative.

While each of the build alternatives would improve intersection operations in 2030 to acceptable levels, the assessment of Alternatives B, C, D, and E reveals a number of important tradeoffs. None of the alternatives would result in significant unavoidable impacts. Also, no individual alternative would result in substantially fewer adverse impacts in the corridor. In terms of parkland effects, residential displacements, disturbance to riparian woodlands and protected trees, effect on threatened and endangered species, and potential loss of cultural resources, these alternatives are generally similar. Key differences between the alternatives include:

- Alternative B, because of the Walters Road Extension, would have a greater effect on biological habitats, wetlands (about one more hectare (about 2.5 acres) of fill), and vernal pool habitat. On the other hand, the proposed alignment under this alternative has the least effect on Contra Costa goldfields.
- Compared to Alternative B, Alternative C would have fewer biological impacts on the species and habitats of concern, except for Contra Costa goldfields, where a greater number of acres would be disturbed.
- The biological effects of Alternative D are comparable to Alternative C. For CEQA considerations, Alternative D does not have any additional impacts not identified for another alternative.
- Of the build alternatives, Alternative E is the only alternative that would result in a Section 4(f) use of parkland, although this use does not constitute a significant impact under CEQA. In addition,

Alternative E would result in the greatest amount of wetland fill and displace the greatest number of existing homes and residents. However, Alternative E would convert less farmland and result in fewer impacts to certain threatened and endangered species, than the other build alternatives.