

## Appendix A CEQA Environmental Checklist

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# Appendix A CEQA Environmental Checklist

Supporting documentation of all CEQA checklist determinations is provided in Chapter 3 of this Environmental Impact Report/Environmental Impact Statement. Documentation of “No Impact” determinations is provided at the beginning of Chapter 3. Discussion of all impacts, avoidance, minimization, and/or compensation measures is under the appropriate topic headings in Chapter 3.

|                   |                  |                  |
|-------------------|------------------|------------------|
| <b>04-SOL-80</b>  | <b>10.8/17.0</b> |                  |
| <b>04-SOL-680</b> | <b>10.0/13.1</b> |                  |
| <b>04-SOL-12W</b> | <b>1.7/2.8</b>   |                  |
| <b>04-SOL-12E</b> | <b>1.8/4.8</b>   | <b>04-0A5300</b> |
| Dist.-Co.-Rte.    | P.M/P.M.         | E.A.             |

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included in Section VI following the checklist. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts.

|   |               | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|---|---------------|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>I. AESTHETICS:</b> Would the project:  |               |                                      |  |                                     |                                     |
| a) Have a substantial adverse effect on a scenic vista  |               |                                      |  |                                     |                                     |
|   | Alternative B | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|   | Alternative C | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway |               |                                      |  |                                     |                                     |
|   | Alternative B | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|   | Alternative C | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?   |               |                                      |  |                                     |                                     |
|   | Alternative B | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|   | Alternative C | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                   |               |                                      |  |                                     |                                     |
|   | Alternative B | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|   | Alternative C | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|   | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>II. AGRICULTURE RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: |                                      |  |                                     |                                     |
| a) 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?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input checked="" type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:  |                                      |  |                                     |                                     |
| a) Conflict with or obstruct implementation of the applicable air quality plan?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact             |
|--|--------------------------------------|--|-------------------------------------|--------------------------|
| c) 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)? |                                      |  |                                     |                          |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?   |                                      |  |                                     |                          |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?  |                                      |  |                                     |                          |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**IV. BIOLOGICAL RESOURCES:** Would the project:

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 or U.S. Fish and Wildlife Service?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

b) 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 US Fish and Wildlife Service?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

c) 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?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

d) 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?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact | No<br>Impact                        |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? |                                      |  |                                    |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

**V. CULTURAL RESOURCES:** Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

d) Disturb any human remains, including those interred outside of formal cemeteries?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**VI. GEOLOGY AND SOILS:** Would the project:

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, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

ii) Strong seismic ground shaking?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

iii) Seismic-related ground failure, including liquefaction?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

iv) Landslides?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

b) Result in substantial soil erosion or the loss of topsoil?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|  | Potentially Significant Impact | Less Than Significant with Mitigation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| 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? |                                |                                       |                                     |                                     |
| Alternative B  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 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?   |                                |                                       |                                     |                                     |
| Alternative B  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?   |                                |                                       |                                     |                                     |
| Alternative B  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>       | <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**VII. GREENHOUSE GAS EMISSIONS:** Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

**VIII. HAZARDS AND HAZARDOUS MATERIALS:** Would the project:

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

Alternative B ☐ ☐ ☒ ☐  
Alternative C ☐ ☐ ☒ ☐

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?

Alternative B ☐ ☐ ☒ ☐  
Alternative C ☐ ☐ ☒ ☐

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Alternative B ☐ ☐ ☒ ☐  
Alternative C ☐ ☐ ☒ ☐

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**IX. HYDROLOGY AND WATER QUALITY:** Would the project:

a) Violate any water quality standards or waste discharge requirements?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

|               |                          |                          |                          |                                     |
|---------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|   | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| d) 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 which would result in flooding on- or off-site?                                   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) 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?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| i) 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?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| j) Inundation by seiche, tsunami, or mudflow  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>X. LAND USE AND PLANNING:</b> Would the project:   |                                      |  |                                     |                                     |
| a) Physically divide an established community?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

|   | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>XI. MINERAL RESOURCES:</b> Would the project:  |                                      |  |                                     |                                     |
| 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?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>XII. NOISE:</b> Would the project result in:   |                                      |  |                                     |                                     |
| a) 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?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**XIII. POPULATION AND HOUSING:** Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

|               |                          |                          |                                     |                          |
|---------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Alternative B | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Alternative C | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



|   | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| <b>XIV. PUBLIC SERVICES:</b>  |                                      |  |                                     |                                     |
| a) Would the project 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?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Police protection?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Schools?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Parks?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Other public facilities?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>XV. RECREATION:</b>  |                                      |  |                                     |                                     |
| a) Would the project 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?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

|   | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|---|--------------------------------------|--|-------------------------------------|-------------------------------------|
| <b>XVI. TRANSPORTATION/TRAFFIC:</b> Would the project:  |                                      |  |                                     |                                     |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access?   |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?  |                                      |  |                                     |                                     |
| Alternative B   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C   | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**XVII. UTILITIES AND SERVICE SYSTEMS:** Would the project:

|  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?  |                          |                          |                          |                                     |
| Alternative B  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? |                          |                          |                          |                                     |
| Alternative B  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation | Less Than<br>Significant<br>Impact  | No<br>Impact                        |
|--|--------------------------------------|--|-------------------------------------|-------------------------------------|
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?  |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?   |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?  |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?   |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?  |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| <b>XVIII. MANDATORY FINDINGS OF SIGNIFICANCE</b>   |                                      |  |                                     |                                     |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  |                                      |  |                                     |                                     |
| Alternative B  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Alternative C  | <input type="checkbox"/>             | <input type="checkbox"/>                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |



## Appendix B Resources Evaluated Relative to the Requirements of Section 4(f)

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# Appendix B Resources Evaluated Relative to the Requirements of Section 4(f)

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The environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by the California Department of Transportation (the Department) under its assumption of responsibility pursuant to 23 U.S.C. 327.

Additional guidance has been obtained from the following sources.

- The Department's Environmental Impact Report/Environmental Impact Statement (EIR/EIS) annotated outline (June 2009).
- The FHWA's *Section 4(f) Policy Paper* (2012).
- Maryland Department of Transportation; State Highway Administration Section 4(f) interactive Training (2006).

## **B.1 Other Park, Recreational Facilities, Wildlife Refuges, and Historic Properties Evaluated Relative to the Requirements of Section 4(f)**

This section of the document discusses parks, recreational facilities, wildlife refuges, and historic properties found within or adjacent to the project area that do not trigger Section 4(f) protection because: 1) they are not publicly owned, 2) they are not open to the public, 3) they are not eligible historic properties, 4) the project does not permanently use the property and does not hinder the preservation of the property, or 5) the proximity impacts do not result in constructive use.

### **B.1.1 Parks, Recreational Facilities, and Wildlife Refuges**

Section 4(f) applies to publicly owned land of a park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance. A summary of all the parks, recreation facilities (including trails and Class I bikeways), and wildlife refuges located within 0.5 mile of the proposed project that do not trigger Section 4(f) protection are listed in Table B-1. The public parks and recreation areas considered in this evaluation include any neighborhood, city, regional, state, and/or federal resources in the project study area.

**Table B-1. Other Parks, Recreational Resources, and Wildlife Refuges Evaluated Relative to the Requirements of Section 4(f)**

| Resource/Address   | Description/Location  |
|--|---|
| <b>Parks</b>   |   |
| Allen Witt Park; 1811 W Texas Street, Fairfield, CA  | A 48-acre park owned and maintained by the City of Fairfield. Facilities include tennis courts, recreation building, picnic areas, ball fields, skate park, basketball courts, volleyball courts and horseshoe pits. <sup>b</sup> The park is located approximately 1,200 feet north of the project construction activities along SR 12E between Beck and Pennsylvania Ave.   |
| Vintage Green Valley Park; Mangels Boulevard and Vintage Valley Drive, Fairfield, CA   | A 6-acre park owned and maintained by the City of Fairfield. Facilities include a play apparatus, picnic areas, and basketball courts. <sup>b</sup> The park is located approximately 1,200 feet northeast the construction activities occurring at the Green Valley Road and Business Center Drive intersection.   |
| Ridgeview Park; Intersection of Silver Creek Road and Oakbrook Drive, Fairfield, CA  | An 8.42-acre park owned and maintained by the City of Fairfield. Facilities include a play apparatus, tennis courts, picnic area, ball fields and basketball courts. <sup>b</sup> The park is located approximately 500 feet west of the construction activities occurring along I-680, north of Gold Hill Road.  |
| Cordelia Community Park Gold Hill Road; Adjacent to Gold Hill Road, Fairfield, CA  | The first phase of the park, 3 acres in size, opened in 2002, and is owned and maintained by the City of Fairfield. Current facilities include baseball fields and an open turf area. At buildout, the park will encompass 48 acres, and will include a multipurpose sports field, soccer fields, roller skate arena, tennis courts, dog park, Frisbee field, horseshoe field, volleyball field, bocce ball courts, and skateboard park. <sup>b</sup> The park is located approximately 1,200 feet west of the construction activities occurring along I-680. |
| Reverend Clay Bon Senior Park; Josiah Circle, Suisun City, CA  | A 1-acre park owned and maintained by Suisun City. Facilities include a turf area, picnic area and benches. <sup>a</sup> The park is located south of SR 12E, approximately 2,000 feet northeast of the project activities occurring on Sacramento Street in Suisun City.   |
| Mike Day Park; 701 Civic Center Boulevard, Suisun City, CA   | A 3-acre park owned and maintained by Suisun City. Facilities include a playground, and picnic and turf areas. <sup>a</sup> The park is located south of SR 12E, approximately 800 feet east of the project activities occurring on Sacramento Street in Suisun City.   |
| Harbor Park; Along Breakwater Circle and Civic Center Boulevard, Suisun City, CA   | A 1-acre park owned and maintained by owned and maintained by Suisun City. Facilities include a turf area, pathway, and benches. <sup>a</sup> The park is located south of SR 12E, approximately 1,500 feet southeast of the project activities occurring on Sacramento Street in Suisun City.  |
| Old Town Plaza; Intersection of Main and Solano Street, Suisun City, CA  | A 1.1-acre park owned and maintained by owned and maintained by Suisun City. Facilities include a grass/turf area, gazebo, "singing rocks", and a waterfront parkway. <sup>a</sup> The park is located south of SR 12E, approximately 400 feet southeast of the project activities occurring on Sacramento Street in Suisun City.   |
| Sheldon Plaza; Adjacent to the Old Town Waterfront, between Main Street and Civic Center Boulevard, along Driftwood Drive, Suisun City, CA | A 0.8-acre park owned and maintained by owned and maintained by Suisun City. Facilities include an open turf area for casual use. <sup>a</sup> The park is located approximately 750 feet northeast of the project activities occurring on Sacramento Street in Suisun City.  |
| <b>Public School Playgrounds and Athletic Fields</b>   |   |
| Rodriguez High School  | This school is owned and maintained by the Fairfield-Suisun Unified School District. Approximately 18 acres of the school's grounds are available to the public for recreational use throughout the year. These available facilities include baseball fields, tennis courts, basketball courts, and a track and field. The school is located west of I-680 at the intersection of Red Top and Lopes Roads.  |
| Armijo High School; 824 Washington Street, Fairfield, CA 94533 <sup>c</sup>  | This school is owned and maintained by the Fairfield-Suisun Unified School District. 14.05 acres of the school's grounds are available to the public for recreational use throughout the year. These available recreation facilities include a swimming pool, tennis and basketball courts, and baseball and football fields (all-weather field). <sup>d</sup> The school is located approximately 1,500 feet north of SR 12E and Civic Center Boulevard.   |
| Fairview Elementary School; 830 First Street, Fairfield, CA 94533 <sup>c</sup>   | This school is owned and maintained by the Fairfield-Suisun Unified School District. 2.78 acres of the school's grounds are available to the public for recreational use throughout the year. These available recreation facilities include a basketball court, baseball field, and an open turf area used for soccer. <sup>d</sup> The school is located approximately 2,000 feet north of the SR 12E/Pennsylvania Ave interchange.  |



| Resource/Address   | Description/Location  |
|--|---|
| E Ruth Sheldon Elementary School; 1901 Woolner Avenue, Fairfield, CA <sup>c</sup>                        | This school is owned and maintained by the Fairfield-Suisun Unified School District. 1.6 acres of the school's grounds are available to the public for recreational use. These available recreation facilities include a turf area. <sup>d</sup> The school is located approximately 1,500 feet northeast of the SR 12E/Beck Ave interchange.   |
| Nelda Mundy Elementary; 570 Vintage Valley Drive, Fairfield, CA <sup>c</sup>                             | This school is owned and maintained by the Fairfield-Suisun Unified School District. 1.57 acres of the school's grounds are available to the public for recreational use. These available recreation facilities include a turf area and baseball fields. <sup>d</sup> The school is located approximately 1,500 feet northwest of the I-80/680 interchange.   |
| Oakbrook Elementary; 700 Oakbrook Drive, Fairfield, CA 94534 <sup>c</sup>                                | This school is owned and maintained by the Fairfield-Suisun Unified School District. The existing baseball field located adjacent to the school is considered part of Ridgeview Park, and is maintained by the City of Fairfield. <sup>d</sup> The school does not have other athletic fields available for public use. The school is located approximately 1100 feet west of the I-680.  |
| Green Valley Middle School; 1350 Gold Hill Road, Fairfield, CA 94534 <sup>c</sup>                        | Owned and maintained by the Fairfield-Suisun Unified School District, 6.5 acres of the school's grounds are available to the public for recreational use. These available recreation facilities include football and baseball fields. <sup>d</sup> The school is located approximately 2,000 feet southwest of the I-680 and Gold Hill Road interchange.  |
| Solano Community College; 4000 Suisun Valley Road Solano County, CA                                      | Owned and maintained by the California Community Colleges Office, 38.77 acres of the school's grounds are available to the public for recreational use throughout the year. These available recreation facilities include a swimming pool and soccer and baseball fields. The school is located approximately 1,500 feet north of the I-680/Suisun Valley Road interchange.   |
| Crystal Middle School; 400 Whispering Bay Lane, Suisun City, CA 94585 <sup>c</sup>                       | This school is owned and maintained by the Fairfield-Suisun Unified School District. 5.48 acres of the school's grounds are available to the public for recreational use throughout the year. These available recreation facilities include football and baseball fields, and a basketball court. <sup>d</sup> The school is located south of SR 12E, approximately 2,000 feet east of the project activities occurring on Sacramento Street in Suisun City.  |
| <b>Wildlife Refuge/Area</b>  |   |
| Grizzly Island Wildlife Complex-Gold Hills Unit; 2548 Grizzly Island Road Solano County, CA <sup>c</sup> | Part of the larger 84,000-acre DFG-owned and maintained Grizzly Island Wildlife area, this 50-acre unit provides seasonal recreational hunting. It also serves as nesting habitat for waterfowl and birds, and provides for plant and food growth for wildlife in the area. <sup>f</sup> It is located 50 feet east of the I-680/Gold Hills Road interchange.   |
| Suisun Marsh Primary and Secondary Management Area; n/a, Solano County, CA                               | Directly east of I-680, the Suisun Marsh Primary and Secondary Management Areas are comprised of approximately 85,000 acres of tidal marsh, managed wetlands, and waterways. It provides wintering habitat for waterfowl of the Pacific Flyway and, because of its size and estuarine location, supports a diversity of plant communities, which in turn provides habitat for a variety of fish and wildlife, including several rare and endangered species.<br>The Solano County General Plan designates lands within the Suisun Marsh as "Marsh," with a "Resource Conservation" overlay. The Marsh designation "provides for protection of marsh and wetland areas. [It] permits aquatic and wildlife habitat, marsh-oriented recreational uses (duck hunting, fishing and wildlife observation), agricultural activities compatible with the marsh environment and marsh habitat, educational and scientific research, educational facilities supportive of and compatible with marsh functions, and restoration of historic tidal wetlands." |
| <b>Trails and Bikeways</b>   |   |
| American Canyon Creek Trail; Fairfield, CA <sup>g</sup>  | A 6.87-acre-long recreational trail owned and maintained by the City of Fairfield. <sup>h</sup> The trail is adjacent to Ridgeview Park and runs between on Oakbrook Drive and Lopes Road, 100 feet west of I-680.  |
| Green Valley Trail; Fairfield, CA <sup>g</sup>   | An approximately 2-mile-long recreational trail owned and maintained by the City of Fairfield. The trail is a dedicated segment of the Bay Area Ridge Trail, and is located between Rockville Hills Park and Mangels Boulevard. <sup>h</sup> The southernmost portion of this trail is approximately 1,500 feet north of I-80/I-680 interchange.  |
| Green Valley Creek Trail; Fairfield, CA <sup>h</sup>   | Approximately 2.5 miles long, this recreational trail owned and maintained by the City of Fairfield. <sup>i</sup> The trail is located along the western side of Green Valley Creek from Rockville Road to Mangels Boulevard. <sup>j</sup> The southernmost portion of this trail is approximately 1,500 feet north of I-80/I-680 interchange.  |
| Suisun Parkway Trail; Fairfield, CA  | This recreational trail is owned and maintained by Solano County, and connects two segments of the Fairfield Linear Park. It begins in the west at Suisun Creek and extends to the west along the north side of the North Connector. It terminates where it meets the Fairfield Linear Park again at Abernathy Road.  |

| Resource/Address  | Description/Location   |
|---|--|
| Cordelia Villages Trail; Fairfield, CA  | This recreational trail is owned and maintained by the City of Fairfield, and extends behind the housing subdivision, approximately 1,500 feet west of I-680. The trail is divided into two sections, and is approximately 2 miles in length. The first portion runs from Silverbrook/Oakbrook Drive intersection and terminates at Gold Hill Road. The second portion begins at Highland Circle and terminates at South Ridgefield Way. <sup>b</sup>  |
| Caltrans I-80 Pathway; Fairfield CA   | This Class I bikeway facility is owned and maintained by the Department and extends 1.2 miles. Approximately 50 feet north of I-80, it parallels westbound I-80, between Red Top Road and Green Valley Road.   |
| Bay Area Ridge Trail; Fairfield CA, Solano County                             | A new segment of the Bay Area Ridge Trail was dedicated by the City of Fairfield and the Bay Area Ridge Trail Council in September 2010. This segment, which lies to the south of I-80 along McGary Road from Red Top Road to Hiddenbrooke Drive, is located immediately adjacent to the western segment of the project alignment. Approximately 3.5 miles long, this trail is designated for multi-use.   |
| I-80/680/SR 12 Interchange Project—Cordelia to Napa (Proposed); Solano County | This 3-mile-long bike path will run from the SR 12W/Red Top Road intersection to the Napa County line. Under the two alternatives, this bike path will be either a Class I (following along the California Northern Railroad Roadway) or Class III bike path. CEQA clearance still needs to be obtained to move forward with design. As such, a construction date for this bike path is not currently known.   |
| Waterfront Promenade; Suisun City, CA <sup>g</sup>                            | A 2.2-acre-long waterfront walkway owned and maintained by Suisun City. This lighted walkway is adjacent to the entire Old Town Waterfront, which connects Old Town Plaza to City Hall. <sup>a</sup> Located approximately 700 feet south of SR 12E, it is used for recreational activities such as walking, running, biking, and fishing. <sup>k</sup>  |
| Central County Bikeway; Suisun City, CA                                       | This Class I bikeway is owned and maintained by the City of Suisun, and is primarily used for walking, running, and biking. <sup>k</sup> It is located north of SR 12E, extending from Marina Boulevard to Walters Road. 2.7 miles in length, this bikeway's westerly terminus is approximately 2,000 feet east of the Suisun City Train Depot. <sup>k</sup>   |
| Central County Bikeway Gap Closure Trail; Suisun City, CA                     | Located north and south of SR 12E this Class I bikeway follows Main Street from Marina Boulevard to the Suisun City Train Depot. Used for walking, running, and biking, it is owned and maintained by the City of Suisun and is approximately 1 mile long. <sup>k</sup>  |
| Marina Extension Trail (Proposed); Suisun City, CA                            | This proposed Class I paved trail will be owned and maintained by the City of Suisun. Approximately 2,000 feet east of the Suisun City Train Depot, the trail will be located on the north side of SR 12E, along Marina Boulevard and Buena Vista Avenue and will serve recreational and transit purposes. <sup>k</sup> It will be 0.25 mile long and 10 feet wide. Funding sources for this trail are not yet known. <sup>k</sup>   |
| Grizzly Island Trail (Proposed); Suisun City, CA                              | This proposed 0.75-mile-long, 10-foot wide, Class I paved recreation trail will be owned and maintained by the City of Suisun. The trail will be located on the south side of SR 12E and will run from Marina Boulevard to Grizzly Island Road. The western portion of this trail, beginning along Marina Boulevard, is approximately 2,000 feet east of Suisun City Train Depot. Partial funding for the trail has been obtained and construction is estimated to begin in the summer of 2011. <sup>k</sup> |

Sources:

<sup>a</sup> Jessop pers. comm.

<sup>b</sup> Binner pers. comm.

<sup>c</sup> Fairfield-Suisun Unified School District 2009.

<sup>d</sup> Swearingin pers. comm.

<sup>e</sup> California Department of Fish and Game 2009.

<sup>f</sup> Pera pers. comm.

<sup>g</sup> City of Fairfield 1998.

<sup>h</sup> Jones & Stokes 2001.

<sup>i</sup> Hancock pers. comm.

<sup>j</sup> Solano Transportation Authority 2009.

<sup>k</sup> Majer pers. comm.

### **B.1.1.1 City of Fairfield**

Construction activities related to the project alternatives may include traffic delays on city roads, where proposed improvements would occur, but all existing main access points to the areas discussed in this section of the document would be maintained. A Transportation Management Plan (TMP) would be prepared to address any short-term disruptions in existing circulation patterns during construction in order to facilitate local traffic circulation and through-traffic requirements during the construction period. Residents and businesses will be notified in advance concerning construction activities before construction begins near homes and businesses.

The project alternatives would not result in any violations of carbon monoxide (CO) National Ambient Air Quality Standards (NAAQS), are not considered a “Project of Air Quality Concern” (POAQC) for particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), would not exceed operational thresholds for reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), CO, and PM<sub>10</sub> emissions, and would result in decreases (not increases) in all mobile source air toxics (MSAT) emissions. With implementation of measures outlined in Section 3.2-6, “Air Quality,” of the EIR/EIS, construction of the project would not result in a significant increase in ROG, NO<sub>x</sub>, CO, and particulate matter emissions. Thus, no air quality-related effects on the Section 4(f) resources within the city of Fairfield discussed here would occur as a result of the proposed project.

Within the Section 4(f) resources discussed here, the project alternatives could affect potential nesting habitat for western burrowing owl, Swainson’s hawk, migratory birds, and raptors. However, implementation of the measures outlined in Section 3.3, “Biological Resources,” in the EIR/EIS would minimize these potential effects.

No planned project improvements would occur on the Section 4(f) properties within the city of Fairfield and listed here, no effects to existing natural communities or special-status plant or animal species would occur. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented as part of the project and best management practices would be implemented to ensure that no adverse impacts related to water quality affect these Section 4(f) resources as a result of project construction (see Section 3.2-2, “Water Quality,” in the EIR/EIS for additional information). Therefore, no adverse impacts related to biological resources or water quality would affect Section 4(f) resources within the city of Fairfield as a result of the proposed project.

#### **Parks**

The project alternatives include highway mainline, freeway-to-freeway interchange, interchange, and local roadway improvements within the city of Fairfield. As shown in Table B-1, four public parks (Allen Witt Park, Vintage Green Valley Park, Ridgeview Park, and Cordelia Community Park) within the city of Fairfield are located within 0.5 mile of the project alternatives. Ridgeview Park is the closest at approximately 500 feet. Given the distance of these four parks from the project alternatives, there would be no proximity impacts attributable to noise or visual impacts because there are homes, commercial buildings, and/or businesses between the project area and the parks. Additionally, as already noted, there would be no proximity impacts related to air quality, biological resources, or water quality on these parks as a result of the project

alternatives. Consequently, the project alternatives would not cause a constructive use of Allen Witt Park, Vintage Green Valley Park, Ridgeview Park, or Cordelia Community Park because the proximity impacts would not substantially impair the protected activities, features, or attributes of these parks.

### **Public School Playgrounds and Athletic Fields**

Seven Fairfield public schools are located within 0.5 mile of the project alternatives. Rodriguez High School is located immediately adjacent to the project area. The public ownership, public availability, and use of the school's athletic field areas qualify this property as a potential Section 4(f) resource. Under Alternative C and Alternative C Phase 1, Lopes Road would be realigned approximately 100 feet to the west of its current location between Fermi Road and Red Top Road. This realignment would move the road closer to Rodriguez High School, but would not affect any portion of the school including its recreational fields. Further, as the areas of the Rodriguez High School immediately adjacent to the project area consists of landscaping, is outside the fenced areas of the school and is not used for recreational purposes, it is not considered a Section 4(f) resource.

Of the seven public schools located within 0.5 mile of the project alternatives, Rodriguez High School is the closest, adjacent to improvements along Lopes Road. Based on the traffic noise modeling study, noise levels taken from one prediction site located in the outfield of the softball field discussed above were calculated for existing and future conditions with and without the project alternatives. The existing traffic noise level at the loudest hour was estimated to be 53 dBA. The future levels (2035) at the noise prediction site (C15, located in the athletic field of the high school) were predicted to be 57 dBA with the project alternatives and 55 dBA under the No-Build alternative (ICF Jones & Stokes 2009). Although the alternatives would be two dBA higher under design-year conditions compared to design-year no-build conditions, noise level does not approach or exceed the noise abatement criteria (NAC) for the land use (67 dBA) under 23 CFR 772 (ICF Jones & Stokes 2009). Therefore, no noise mitigation is proposed as part of the project.

Additionally, the Department has determined that a constructive use does not occur when the proximity impacts do not substantially impair the characteristics that qualify the property for protection under Section 4(f). The proximity of the realigned road to the softball field would not preclude the use of this area for public recreational activities. It also would not affect the function of the school and the softball field would remain intact; recreation facilities would not be interrupted. Moreover, because the main entrance to the school and associated playfields is from Red Top Road and not Lopes Road, access to the school and associated fields would not change as a result of the roadway realignment. Additionally, as already noted, there would be no proximity impacts related to air quality, biological resources, or water quality on this school's athletic fields as a result of the project alternatives. The project alternatives would not cause a constructive use of Rodriguez High School because proximity impacts would not substantially impair the protected activities, features, or attributes of the school's athletic fields.

The other schools offer their playgrounds and athletic fields to the public for recreational use outside of school hours, and are considered potential Section 4(f) resources. Of these six schools, Oakbrook Elementary, at 1,100 feet away, is the closest school to the project alternatives. Because these six schools are approximately 0.25 mile or more away from the project

alternatives and are separated from the project alternatives by homes, commercial buildings, and/or businesses, there would be no associated noise or visual impacts from the construction activities. Furthermore, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on the athletic grounds of these schools as a result of the project alternatives. The project alternatives would not cause a constructive use of Armijo High School, Fairview Elementary School, E. Ruth Sheldon Elementary School, Nelda Mundy Elementary School, Oakbrook Elementary School, or Green Valley Middle School because proximity impacts would not substantially impair the protected activities, features, or attributes of these playgrounds and athletic fields.

### ***Trails and Bikeways***

A review of the City of Fairfield's Trails Master Plan (1998) and other resources identified six off-road trails within 0.5 mile of the project alternatives. All of these were evaluated as potential Section 4(f) resources. The Caltrans I-80 Pathway is currently used primarily for transportation. It does not link or connect any specific recreational facilities and is not designated as a recreational facility in any local planning documents. Additionally, it is considered by Caltrans staff, including the District 04 Bicycle Coordinator, to be a transportation facility. Therefore, it is not a Section 4(f) resource.

The American Canyon Creek Trail is closest to the project alternatives at 50 feet away from proposed improvements. This trail terminates on Lopes Road, a frontage road alongside southbound I-680. At the easterly terminus of the American Canyon Creek Trail, trail users would be exposed to construction noise associated with the project alternatives. However, given its proximity to I-680 (approximately 100 feet), trail users are already exposed to noise levels of 67 dBA at this location. The increase in noise would be temporary in nature, and would not disrupt or alter use of the trail. The future levels (2035) noise levels were predicted to be at 69 dBA with the buildout of the project alternatives and 68 dBA under the no-build alternative. While the projected noise level with the project alternatives would exceed the NAC for the land use (67 dBA), the increase in the projected noise levels, compared to the projected noise levels under no-build conditions, is barely perceptible (i.e., one dBA or less).

There would be some minor visual effects for trail users during construction. However, these effects would be temporary in nature and would occur only during the construction period. This temporary change in view would not affect access or the use of the American Canyon Creek Trail. Furthermore, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on this trail as a result of the proposed project. The project alternatives would not cause a constructive use of the American Canyon Creek Trail because the proximity impacts would not substantially impair the protected activities, features, or attributes of the trail.

The remaining three off-road recreational trails within 0.5 mile of the project alternatives are at least 1,500 feet away from any proposed improvements. Furthermore, these trails would be separated from the project alternatives by homes, commercial buildings, and/or businesses. Also, as noted, no proximity impacts relating to air quality, biological resources, or water quality would occur on these trails as a result of the project alternatives. The project alternatives would not cause a constructive use of the Green Valley Trail, the Green Valley Creek Trail, or the

Cordelia Villages Trail because the proximity impacts would not substantially impair the protected activities, features, or attributes of these trails.

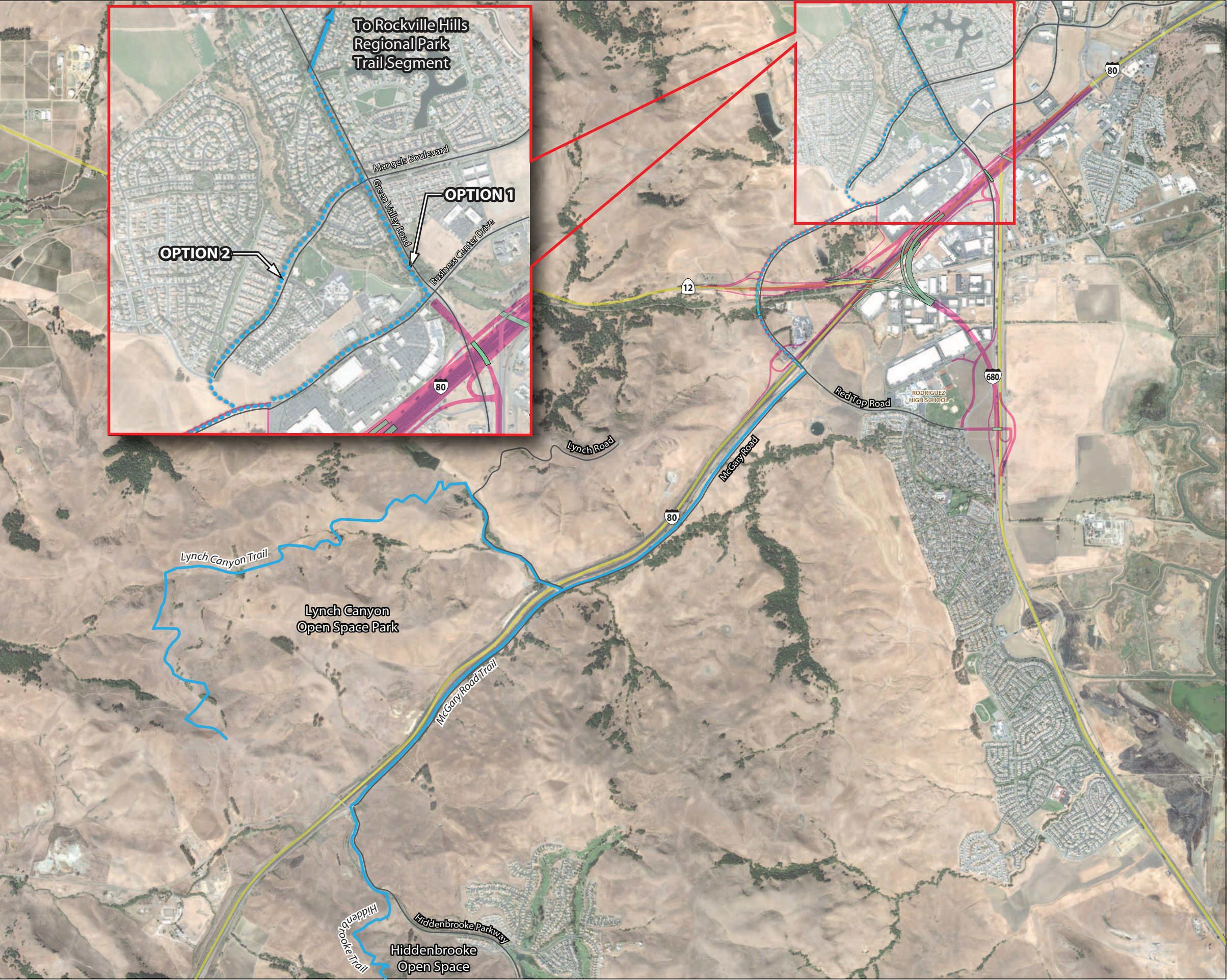
Additionally, a new segment of the Bay Area Ridge Trail was dedicated by the City of Fairfield and the Bay Area Ridge Trail Council in September 2010. This segment, which lies to the south of I-80 along McGary Road from Red Top Road to Hiddenbrooke Drive, is located immediately adjacent to the western segment of the project alignment (see **Figure B-1**). Approximately 3.5 miles long, this trail is designated for multi-uses including hiking, biking, and equestrian uses. The proposed project's Alternative C, Phase 1 will not cause a constructive use of the segment of the trail along McGary Road from Red Top Road to Hiddenbrooke because the proximity impacts will not substantially impair the protected activities, features, or attributes of the trail.

While more than half of the anticipated 550-mile Bay Area Ridge Trail is already open and dedicated for public use in perpetuity, some gaps remain in areas where the Bay Area Ridge Trail Council has been unable to arrange a route. Even with the new McGary Road Trail, the project area is one of the gaps in the current Bay Area Ridge Trail system (Bay Area Ridge Trail Council 2010, Solano Transportation Authority 2004). Bay Area Ridge Trail users currently traverse the project area and use existing on-street bike and pedestrian facilities located along Green Valley Road and I-80 to reach Red Top Road to access completed and open segments of the Bay Area Ridge Trail to the north and south.

Implementation of the build alternatives would beneficially open up several alternatives for completing the gap between the existing segments of the Bay Area Ridge Trail between Green Valley Road and McGary Road. There are two potential alignments considered to close the Bay Area Ridge Trail gap between Green Valley Road and McGary Road in the project area. The alignment would extend from McGary Road north along Red Top Road and the new Business Center Drive Extension to the new bike path alignment at the intersection with the existing Business Center Drive roadway. At this point, as shown as Option 1 in **Figure B-1**, the Bay Area Ridge Trail could continue along Business Center Drive to Green Valley Road and then run north to the existing trail segment on Green Valley Road. Alternatively, the Bay Area Ridge Trail could follow the new bike path alignment to Mangels Boulevard and then east along Mangels Boulevard to Green Valley Road and connect with the existing trail segment (Option 2 in **Figure B-1**).

Project alternatives could indirectly affect Bay Area Ridge Trail users if access through the project area was impeded during construction or if the project alternatives would impede or create a barrier to completing and opening new segments of the Bay Area Ridge Trail through the project area. Specifically, Alternative B, Alternative C, and Alternative C, Phase 1 include improvements that would involve widening I-80 and constructing new connector ramps to SR 12W as well as construction of a new road that would connect the I-80/Red Top Road interchange with Business Center Drive. Between I-80 and SR 12W, Red Top Road would be realigned to cross over the UPRR tracks and SR 12W approximately 0.25 mile west of the existing SR 12W/Red Top Road intersection. From SR 12W to Business Center Drive, the new road would be an extension of Business Center Drive, originally proposed as part of the North Connector project.





- Legend**
- Proposed New or Expanded/Improved Roads
  - Proposed New or Expanded/Improved Bridge/Overcrossing
  - Potential Bay Area Ridge Trail Alignments
  - Existing Bay Area Ridge Trails

**NOTE:** The McGary Road Trail was dedicated by the City of Fairfield and the Bay Area Ridge Trail Council in September 2010.

**Figure B-1**  
**Bay Area Ridge Trails**  
**in Project Area**



**Figure B-1, Bay Area Ridge Trails in Project Area (BACK)**



These improvements would affect the existing Caltrans I-80 Pathway, which connects Green Valley Road to Red Top Road at SR 12W, and would be realigned and/or relocated to the extension of Business Center Drive. As a result the Caltrans I-80 Pathway, which could be used by Bay Area Ridge Trail users to access completed and open segments of the Bay Area Ridge Trail to the north and south of the project area, might be closed for several months during project construction.

To minimize potential impacts to bicycle and pedestrian users of the Caltrans I-80 Pathway, the project will provide van service during certain hours to transport cyclists and pedestrians traveling between Green Valley Road at I-80 and Red Top Road at McGary Road during construction. After construction is complete, trail users would be able to traverse the project area utilizing the new extension of Business Center Drive to cross over SR 12W, the UPRR tracks and connect with Red Top and McGary Road. The project alternatives, once completed, would not impede access nor create a barrier to completing and opening segments of the planned Bay Area Ridge Trail in the project area. Thus, the provisions of Section 4(f) are not triggered.

### **B.1.1.2 Suisun City**

Construction-related activities may include traffic delays on city roads, where project improvements would occur, but all existing main access points to the areas within Suisun City discussed here would be maintained. A TMP would be prepared to address any short-term disruptions in existing circulation patterns during construction in order to facilitate local traffic circulation and through-traffic requirements during the construction period. Residents and businesses would also be notified in advance concerning construction activities before construction begins near homes and businesses.

The project alternatives would not result in any violations of CO NAAQS, are not considered a POAQC for PM<sub>10</sub> and PM<sub>2.5</sub>, and would not exceed operational thresholds for ROG, NO<sub>x</sub>, and CO and would result in decreases (not increases) in all MSAT emissions. With implementation of measures outlined in Section 3.2-6, “Air Quality,” of the EIR/EIS, construction of the proposed project would not result in significant increases in ROG, NO<sub>x</sub>, CO, and particulate matter emissions. No air quality-related impacts on the Section 4(f) resources within Suisun City listed below would occur as a result of the project alternatives.

Within the Section 4(f) resources located in the Suisun City portion of the project vicinity, the project alternatives could have effects on potential nesting habitat for western burrowing owl, Swainson’s hawk, migratory birds, and raptors. However, implementation of the measures in Section 3.3, “Biological Resources,” of the EIR/EIS would minimize these potential effects. Also, because no planned project improvements would occur on the Section 4(f) properties located within Suisun City listed below, no effects to existing natural communities or special-status plant species would occur. A SWPPP would be prepared and implemented as part of the project and best management practices would be implemented to ensure no adverse effects to water quality would occur on these Section 4(f) resources as a result of project construction (see Section 3.2-2 “Water Quality” in the EIR/EIS for additional information). Therefore, there would be no impacts related to biological resources or water quality on the Section 4(f) resources located in the Suisun City portion of the project vicinity as a result of the project alternatives.

### **Parks**

In Suisun City the project alternatives includes highway mainline, interchange, and local roadway improvements. As shown in Table B-1, five public parks within Suisun City are located within 0.5 mile of the project alternatives. Old Town Plaza is the closest in proximity, approximately 400 feet away from the project alternatives. The other parks range from 750 to 2,000 feet away from the project alternatives, and are separated from the project alternatives by homes and businesses. At such proximity, there would be no associated noise or visual impacts from construction activities on these five public parks. Furthermore, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on these parks as a result of the project alternatives. The project alternatives would not cause a constructive use of Reverend Clay Bon Senior Park, Mike Day Park, Harbor Park, Old Town Plaza, or Sheldon Plaza because the proximity impacts would not substantially impair the protected activities, features, or attributes of these parks.

### **Public School Playgrounds and Athletic Fields**

One public school, Crystal Middle School, is located within 0.5 mile of the project area. Located 2,000 feet away from the project alternatives, this school offers its playgrounds and athletic fields to the public for recreational use outside of school hours. Thus, it is considered a potential Section 4(f) resource. However, because this school is almost 0.5 mile away from the project alternatives and is separated from the project alternatives by homes, commercial buildings, and/or businesses, there would be no associated noise or visual impacts from construction activities. Additionally, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on Crystal Middle School as a result of the project alternatives. The project alternatives would not cause a constructive use of Crystal Middle School because the proximity impacts would not substantially impair the protected activities, features, or attributes of the playgrounds and athletic fields.

### **Trails and Bikeways**

Five off-road Class I bikeways are located within 0.5 mile of the project alternatives within Suisun City. They are all considered potential Section 4(f) resources. Three of these trails are currently in use and two are future planned facilities (Major pers. comm.). The Central County Bikeway Gap Closure Trail is the closest at approximately 200 feet away from the project alternatives. Vegetation and commercial buildings separate this trail from the project area. Trail users could be exposed to construction noise associated with the project alternatives, but because this trail follows and travels underneath SR 12E, trail users would already be exposed to noise levels of 61 dBA at this location. The increase in noise due to construction of the project alternatives would be temporary in nature and would not disrupt or alter use of the trail.

Although both full-build alternatives would be one to two dBA higher under design-year conditions compared to design-year no-build conditions, noise levels would not approach or exceed the NAC for the land use (67 dBA) under 23 CFR 772 (ICF Jones & Stokes 2009). There would be no impacts attributable to noise. Furthermore, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on this trail as a result of the project alternatives. Therefore, the project alternatives would not cause a constructive use of the Central County Bikeway Gap Closure Trail because proximity impacts would not substantially impair the protected activities, features, or attributes of the trail.

The remaining four (two existing and two proposed) off-road recreational trails within 0.5 mile of the project alternatives range from approximately 700 to 2,000 feet away from any proposed improvements. Furthermore, these trails would be separated from the project alternatives by homes, commercial buildings, and/or businesses. Additionally, as noted above, there would be no proximity impacts related to air quality, biological resources, or water quality on this trail as a result of the project alternatives. The project alternatives would not cause a constructive use of the Waterfront Promenade, the Central County Bikeway, the Marina Extension Trail (Proposed), or the Grizzly Island Trail (Proposed) because the proximity impacts would not substantially impair the protected activities, features, or attributes of these trails.

### **B.1.1.3 Solano County**

Construction-related activities may include traffic delays on county roads, where project alternatives would occur, but all existing main access points to the areas discussed below would be maintained. A TMP would be prepared to address any short-term disruptions in existing circulation patterns during construction in order to facilitate local traffic circulation and through-traffic requirements during the construction period. Residents and businesses would be notified in advance concerning construction activities before construction begins near homes and businesses.

The project alternatives would not result in any violations of CO NAAQS, are not considered a POAQC for PM<sub>10</sub> and PM<sub>2.5</sub>, and would not exceed operational thresholds for ROG, NO<sub>x</sub>, CO, and would result in decreases (not increases) in all MSAT emissions. With implementation of measures described in Section 3.2-6, “Air Quality,” of the EIR/EIS, construction of the project would not result in a significant increase in ROG, NO<sub>x</sub>, CO, and particulate matter emissions. No air quality-related effects on the Section 4(f) resources within Solano County would occur as a result of the proposed project.

With regard to the Section 4(f) resources discussed here, the project alternatives have the potential to affect nesting habitat for western burrowing owl, Swainson’s hawk, migratory birds, and raptors. However, implementation of the measures in Section 3.3, “Biological Resources,” of the EIR/EIS would minimize these potential effects. Because no planned project improvements would occur on the Section 4(f) properties located within Solano County, no effects to existing natural communities or special-status plant species would occur. A SWPPP would be prepared and implemented as part of the project and best management practices would be implemented to ensure no adverse effects to water quality would occur on these Section 4(f) resources as a result of project construction (see Section 3.2-2, “Water Quality,” of the EIR/EIS for additional information). There would be no adverse impacts related to biological resources, or water quality on the Section 4(f) resources within Solano County as a result of the proposed project.

### **Public School Playgrounds and Athletic Fields**

The project alternatives include highway mainline, interchange, and local roadway improvements within unincorporated portions in Solano County. As shown in Table B-1, one public school is within 0.5 mile of the proposed project. Solano Community College is located 1,500 feet north of the project alternatives. Because the college offers its athletic fields to the public for recreational use outside of school hours, it is considered a potential Section 4(f) resource. However, the college is further than 0.25 mile away from the project alternatives and is

separated from the project alternatives improvements by commercial buildings and/or businesses. There would be no associated noise or visual impacts from construction activities. Additionally, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on Solano Community College as a result of the proposed project. The project alternatives would not cause a constructive use of Solano Community College because proximity impacts would not substantially impair the protected activities, features, or attributes of the playgrounds and athletic fields.

### ***Trails and Bikeways***

A review of the Solano Transportation Authority's Solano Countywide Bicycle Plan (2004) and other resources identified one proposed and one existing bikeway within 0.5 mile of the project alternatives. The proposed bikeway, known as the 80/680/SR 12 Interchange Project—Cordelia to Napa, would parallel SR 12W from Red Top Road into Napa County. This bike path will be a Class II facility, is expected to be used for transportation equally as for recreation, and will not be considered a Section 4(f) resource. The provisions of Section 4(f) are not triggered.

The Suisun Parkway Trail, which is being constructed as part of the Suisun Parkway project, connects two segments of the Fairfield Linear Park Trail between Suisun Creek and Abernathy Road. The trail is owned and operated by Solano County and extends along the north side of the Suisun Parkway (formerly referred to as the North Connector) north of I-80. The Suisun Parkway Trail connects with the Fairfield Linear Park trail at Suisun Creek on the west and Abernathy Road on the east. The Suisun Parkway Trail is a Class I trail that would not be used primarily for transportation or part of a local transportation system. As such, it would be considered a Section 4(f) resource.

The trail is located on the north side of Suisun Parkway. Trail users would not be exposed to construction or long-term operational noise associated with the project alternatives because the trail is separated from the project area by Suisun Parkway (a four-lane roadway). Furthermore, as noted, there would be no proximity impacts related to air quality, biological resources, or water quality on this trail as a result of the project alternatives. Therefore, the project alternatives would not cause a constructive use of the Suisun Parkway Trail because proximity impacts would not substantially impair the protected activities, features, or attributes of the trail.

### ***Wildlife Refuge/Area***

#### ***Grizzly Island Wildlife Complex—Gold Hills Unit***

Maintained by the California Department of Fish and Game (DFG), the 50-acre Gold Hills Unit of the Grizzly Island Wildlife Complex serves as a refuge area and nesting habitat for waterfowl and birds, and provides for plant and food growth for wildlife in the area (California Department of Fish and Game 2009). As such, the unit meets the criteria for a Section 4(f) resource. As shown in Table B-1, the unit is 50 feet east of the project alternatives. Although proposed construction activities would occur adjacent to the wildlife area, the activities would be minor and temporary in nature, and would not disrupt use, or alteration of, the refuge area. The future noise levels (2035) with the full-build alternatives would be only one dBA higher than the design-year no-build conditions (ICF Jones & Stokes 2009). This increase in noise level would be barely perceptible. Waterfowl, migratory birds, and other wildlife which are present within the Gold Hills Unit are already exposed to the existing noise volumes along I-680. Thus, there

would be no noise-related impacts on this Section 4(f) resource due to implementation of project alternatives. Additionally, as noted above, there would be no air quality, vegetation, wildlife or water quality related proximity impacts on this refuge as a result of the project alternatives. Consequently, the project alternatives would not cause a constructive use of the Gold Hills Unit because the proximity impacts would not substantially impair the protected activities, features, or attributes of the refuge area.

### **Suisun Marsh Management Area**

Lands within the Suisun Marsh, to the south of the city of Fairfield and east of I-680, are protected by strict limitations on development within the primary and secondary management areas of the Suisun Marsh Protection Plan under the Solano County General Plan (Solano County 2008). Specifically, portions of the Suisun Marsh Secondary Management Area are located east of I-680 from the Gold Hill Road overpass and north to Jameson Canyon Creek. Although, the Suisun Marsh Secondary Management Area provides habitat for marsh-related wildlife and insulates the habitats in the primary management area, only those portions of the secondary management area that are publicly owned qualify as a Section 4(f) resource. Construction of Alternative B, Alternative C, and Alternative C, Phase 1 would involve improvements within the Suisun Marsh Secondary Management Area. However, as these improvements occur on land which is privately owned, this portion of the management area is not a Section 4(f) resource.

Other publicly owned portions of the Suisun Marsh Primary and Secondary Management Areas are located in the vicinity of the proposed project. Although proposed construction activities would occur near the Suisun Marsh Primary and Secondary Management Areas, the activities would not disrupt or alter use of the management areas. The future noise levels (2035) with the project alternatives would be only one dBA higher than no-build conditions within this portion of the project site (ICF Jones & Stokes 2009). This increase in noise level would be barely perceptible to humans. Wildlife species present within the management areas are already exposed to the existing noise volumes along I-680. There would be no noise-related impacts on this Section 4(f) resource due to implementation of project alternatives. As noted, there would also be no proximity impacts related to air quality, biological resources, or water quality on the management areas as a result of the project alternatives. Consequently, the project alternatives would not cause a constructive use of the Suisun Marsh Primary and Secondary Management Areas because proximity impacts would not substantially impair the protected activities, features, or attributes of the refuge area.

## **B.1.2 Historic and Archaeological Sites**

Section 4(f) applies to lands of a historic site of national, state, or local significance. The Neitzel Farm parcel, which originally contained National Register of Historic Places-eligible<sup>1</sup> (NRHP) structures, is located within the area of potential effects (APE)<sup>2</sup> for the project alternatives. Both alternatives (Alternative B and Alternative C) include improvements occurring within the

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<sup>1</sup> The National Register of Historic Places (NRHP) is the official list of the Nation's historic places, including districts, sites, buildings, structures, and objects that are significant to American history, architecture, archeology, engineering, and culture that are worth of preservation. To be NRHP-eligible, a resource must possess a quality of significant in American history per the criteria for evaluation under 36 CFR Part 60.

<sup>2</sup> The area of potential effect (APE) is defined as the study area for historic resources affected by the project.

boundaries of the Neitzel Farm parcel. However, the historic Neitzel Farm has been removed by the Fairfield Corporate Commons project, which is currently under construction and will be complete prior to the construction of the proposed project.

Three eligible historic resources are located adjacent to the proposed project: the Suisun City Train Depot, the Village of Cordelia Historic District, and the Suisun City Historic District. Under both alternatives, construction would occur in the southern portion of the Suisun City Train Depot parcel, however, the depot is located on the northern portion of the parcel and the construction would not result in an adverse effect.<sup>3</sup> Under Alternative B and Alternative B, Phase 1, construction would bring the highway closer to the Village of Cordelia Historic District, but this would not constitute an adverse effect because none of the contributing properties would be affected. There would be a visual impact to the district, but it would not be considered adverse because the setting of the district has already been affected by the existing facility. Under Alternative C, and Alternative C, Phase 1 the highway would be moved further from the district and there would be no effect. Similarly, both alternatives would result in a visual impact to the Suisun City Historic District but it would not be an adverse effect because it would not alter the district's overall sense of place and time. As indicated in Stipulation II.B.4 of the 80/680/12 Programmatic Agreement (See Appendix H of the EIR/EIS) the project, as currently proposed, will result in no adverse effect on eligible built environment properties. The SHPO's signature on the PA constitutes agreement with that determination.

If the historic or archaeological site is not listed on or eligible for listing on the NRHP, the provisions of Section 4(f) do not apply (23 CFR 774.11[e]). In all, 42 non-eligible historic properties, two non-eligible archaeological sites, and 29 bridges are located within the proposed project's APE.

## B.2 Printed References

Bay Area Ridge Trail Council. 2010. Bay Area Ridge Trail Council Web site. Available at: <<http://www.ridgetrail.org/index.cfm>>. Accessed February 17, 2010.

California Department of Fish and Game. 2009. *Grizzly Island Wildlife Area - Solano County*. Available at: <<http://www.dfg.ca.gov/lands/wa/region3/grizzlyisland/index.html>>. Accessed: July 22, 2009.

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<sup>3</sup> The terms "adverse effect" and "no effect" are defined under the National Historic Preservation Act. Had there been an adverse effect under the National Historic Preservation Act, it would have constituted as a "use" under Section 4(f).

California Department of Transportation. 2009. Standard Environmental Reference, Forms and Templates, Annotated Outlines/Re-Validation Form, EIR/EIS. June. Available: <<http://www.dot.ca.gov/ser/forms.htm>>. Accessed: July 2, 2009.

City of Fairfield 1998. *Master Trails Plan*. Prepared by the Department of Community Services, Department of Planning and Development, City of Fairfield.

Federal Highway Administration 2012. *Section 4(f) Policy Paper*. Office of Planning, Environment and Realty Project Development and Environmental Review. March 1. Available at: <<http://www.environment.fhwa.dot.gov/4f/4fpolicy.asp#toc>>. Accessed: October 8, 2012.

ICF Jones & Stokes. 2009. Noise Study Technical Report for the I-80/I-680/SR-12 Interchange Project, Solano County, California. March.

Maryland Department of Transportation; State Highway Administration Section 4(f) interactive Training (2006). <Available at: <http://www.section4f.com/home.htm>>. Accessed: July 22, 2009.

Solano County. 2008. *General Plan*. Fairfield, CA.

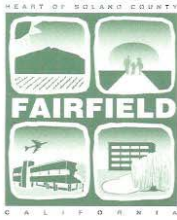
Solano Transportation Authority 2004. *Solano Countywide Bicycle Plan*. Available at: <<http://www.sta.dst.ca.us/pdfs/Plans/2004%20Solano%20Countywide%20Bike%20Plan.pdf>>. Accessed: July 22, 2009.

### **B.3 Personal Communications**

Majer, Alysia. Management Analyst, Public Works Department, City of Suisun City. Telephone conversation with Beth Eggerts of ICF International on June 29, 2009 and November 9, 2009, regarding the trail facilities within Suisun City.

Miller, Brian. City Planner, Community Development Department, City of Fairfield. Telephone conversation with Beth Eggerts of ICF International on February 17, 2010, regarding the designation of the Bay Area Ridge Trail within the City of Fairfield.

## Concurrence from City of Fairfield Regarding Impacts to City of Fairfield Linear Park



### CITY OF FAIRFIELD

Founded 1858

Incorporated December 12, 1903

COMMUNITY DEVELOPMENT DEPARTMENT  
Planning Division

VIA REGULAR MAIL AND FACSIMILE (510-286-5600)

November 22, 2010

Melanie Brent  
District Office Chief  
Department of Transportation  
P.O. Box 23660  
Oakland, CA 94623-0660

**Re: Concurrence Regarding Impacts to City of Fairfield Linear Park**

Dear Ms. Brent:

I am writing in response to your November 5, 2010 letter seeking concurrence on the finding of minimal impact upon the City of Fairfield Linear Park from the proposed Interstate 80 (I-80)/Interstate 680 (I-680)/State Route 12 (SR12) Interchange project.

The City of Fairfield confirms that the proposed project's impacts would be minimal and that these impacts will be temporary in nature and addressed through the realigned trail. We look forward to continue to work with you during the final design phases to ensure that proper measures are utilized to avoid and minimize any impacts.

Sincerely,

ERIN L. BEAVERS  
Director of Community Development

ELB:ccs

c: Janet Adams, Solano Transportation Authority  
George Hicks, City of Fairfield Public Works Department

#### COUNCIL

Mayor  
Harry T. Price  
707.428.7395

Vice-Mayor  
Chuck Timm  
707.428.6288

Councilmembers  
707.428.6288  
Catherine Moy

John Mraz  
Rick Vaccaro

\*\*\*

City Manager  
Sean P. Quinn  
707.428.7400

\*\*\*

City Attorney  
Gregory W. Stepanich  
707.428.7419

\*\*\*

City Clerk  
Arlotte K. Cortright  
707.428.7384

\*\*\*

City Treasurer  
Oscar G. Reyes, Jr.  
707.428.7486

#### DEPARTMENTS

Community Development  
707.428.7461

\*\*\*

Community Resources  
707.428.7465

\*\*\*

Finance  
707.428.7496

\*\*\*

Fire  
707.428.7375

\*\*\*

Human Resources  
707.428.7394

\*\*\*

Police  
707.428.7551

\*\*\*

Public Works  
707.428.7485

S:\Community Development Files\erin\correspondence\LinearParkConcurrence.doc

CITY OF FAIRFIELD \*\*\* 1000 WEBSTER STREET \*\*\* FAIRFIELD, CALIFORNIA 94533-4883 \*\*\* www.fairfield.ca.gov



**Section 4(f) Memorandum for the  
Interstate 80/Interstate 680/State Route 12 Interchange Project**

District 4-SOL-80 (PM 10.8/17.0); SOL-680 (PM 10.0/13.1);  
SOL-SR 12 (PM1.7/L2.8); and SOL-SR 12 (PM L1.8/4.8)  
EA # 0a5300, Project #04-0000-0150

**REASON FOR THIS MEMORANDUM**

Since the publication the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Interstate 80/Interstate 680/State Route 12 Interchange Project in August 2010, a change has been incorporated into the project description by the Solano Transportation Authority (STA) and the Department.

This revision includes the relocation of a Pacific Gas & Electric (PG&E) valve lot to an alternate site than previously analyzed. PG&E has indicated that the site currently identified is not ideal for their long term needs; PG&E has thus identified an alternate site for relocating their facilities. The alternate site would be located on property to the east of I-680 along Central Way. This proposed site is owned by the Fairfield-Suisun Unified School District (FSUSD). See Figure 1 of **Attachment A**.

The purpose of this memorandum is to document any changes in the Section 4(f) analysis presented in the Draft EIR/EIS that results from the change to the project description described above.

**PROJECT DESCRIPTION**

Please refer to **Attachment A** of this addendum for a description of the setting and activities associated with the relocation of the PG&E valve lot to the alternate site.

**ANALYSIS**

The closest Section 4(f) resource to the alternate PG&E valve lot site is the Cordelia Historic District, located approximately 0.2 mile to the south (see Figure 3.1.1-1, Sheet 4 of the Draft EIR/EIS). Relocation of the valve lot to this alternate site would not directly impact this Section 4(f) resource. Construction and operation involved with the valve lot would be concentrated on the northerly portion of the FSUSD property (those portions of the site furthest from the Cordelia Historic District), thereby reducing any potential for indirect effects to occur.

Thus, activities associated with relocating to this alternate location would not create any new additional Section 4(f) impacts beyond what was already analyzed.

**CONCLUSION**

For the reasons described above, relocating the PG&E valve lot to the alternate site would not change the findings, recommendation or conclusions of the Section 4(f) analysis in the Draft EIR/EIS.

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**ATTACHMENT A:**  
**RELOCATION DESCRIPTION**



**ATTACHMENT A:**  
**PACIFIC GAS & ELECTRIC (PG&E) VALVE LOT RELOCATION DESCRIPTION**

***Project Location, Setting and Description:***

The existing valve lot would be relocated within a 7.69 acre site, owned by the Fairfield Suisun Unified School District (APN 045-300-070) (see **Figure 1**), located at 3630 Ritchie Road in the City of Fairfield within Solano County. The relocated valve lot would occupy a 1.32-acre portion of the school district parcel (northwestern portion of the property). The 7.69 acre parcel would be divided into two separate parcels: 1) one 1.32-acre parcel for the relocated PG&E valve lot and portions of the pipelines leading to the valve lot which would be acquired by STA; and, 2) the remainder of the parcel (6.37 acres) for future development (development of which is not part of this project).

The project site for the valve lot is currently vacant, but was previously occupied by the Green Valley Middle School. The school has been relocated, the buildings demolished and the site has remained vacant since 2004. A portable classroom unit which is no longer used is located on the western portion of the project site, which would be removed as part of the project prior to construction.

The 7.69 acre site is bound by Ritchie Road to the west, commercial/industrial businesses to the north, and Grobric Court to the east. Cordelia Automotive, a mechanical automotive service business, and Classic Powder Coating, a metal refinishing business is immediately north of the project site. Inserv Company, a water treatment product and equipment business, is east of the project site. Vacant areas are immediately south of the project site. I-680 and I-80 are located 0.15 miles to the west and north of the project site, respectively. Green Valley Creek is 0.1 miles northeast of the project site. The Village of Cordelia Historic District is 0.2 miles south of the project site.

The existing PG&E valve lot is located between I-680 and I-80, to the east of Lopes Road (See **Figure 1**). The project would relocate the existing valve lot to a new location on the east side of I-80 (the project site) 0.2 mile (approximately 1,000 feet) east of its current location. All activities on the existing valve lot would cease as the lot would be deactivated and all pipeline maintenance equipment on site would be removed once the new valve lot is operational. Relocation of the valve lot is necessary to make way for the proposed improvements to the Green Valley overcrossing.

**Figure 2** shows the plan for relocating the valve lot and pipelines. As shown in the figure, all major piping and valves would be installed below ground with the exception of aboveground pipeline extensions with valve/hand wheels to regulate gas flow. The installation of pipelines and the valve/hand wheels aboveground on the project site would require excavations of approximately 5 to 10 feet, depending on the location. The final height of the aboveground equipment would be at ground level. Additionally, a pipeline inspection gauge (pig) launcher would be installed at the project site. Pig launchers are pipeline maintenance equipment used to clean the pipeline or assess corrosion along a pipeline. Piping associated with the pig launcher would be approximately 4 to 5 feet above ground.

The finished valve lot would be approximately 1 foot above grade with an aggregate base (gravel). Maintenance equipment and pipelines installed would be enclosed with a 7-foot high chain-linked fence.

Five new underground gas pipelines would be installed to connect the existing natural gas system to the relocated valve lot (see **Figure 3**). Of the five pipelines, two pipelines would route gas to the valve lot and three pipelines would route gas from the valve lot to PG&E's existing gas distribution system. **Table 1** lists the diameter and length of the project pipelines. The capacity of the natural gas pipelines or PG&E's gas delivery system would not increase as a result of the project.

Table 1: Project Pipeline Details

| Pipeline  | Diameter  | Length     |
|---|-----------|------------|
| <b>Pipelines Routing Gas to the Valve Lot</b>   |           |            |
| L-210A  | 32 inches | 100 feet   |
| L-210B  | 16 inches | 350 feet   |
| <b>Pipelines Routing Gas from the Valve Lot</b> |           |            |
| L-210A  | 24 inches | 1,650 feet |
| L-210B  | 16 inches | 1,650 feet |
| L-210C  | 24 inches | 650 feet   |

Source: GTS, 2011; Circlepoint, 2011.

Construction to install pipelines under roadways, including I-680, I-80, and Central Way would utilize trenchless construction methods, such as the guided boring method<sup>1</sup> or horizontal directional drilling<sup>2</sup>, to limit surface ground disturbances. In other areas, trenching and open-cut methods would be used to install the pipelines. The direct buried sections of the pipelines would be excavated to a maximum depth of 8 feet; the new pipelines would be located at a minimum depth of 5 feet. At pipeline tie-in areas, bell holes<sup>3</sup> would be excavated to maximum depth of 18 feet.

**Figure 4** shows the areas of surface disturbances and subsurface disturbances related to project construction. All of these areas with the exception of the 7.69 acre site owned by the Fairfield Suisun Unified School District, occur within areas already identified for ground disturbance as part of the Alternative C, Phase 1 project.

The valve lot relocation would require the acquisition of 1.32 acres from the Fairfield Suisun Unified School District, and secure permanent and temporary easements needed for operation/maintenance and construction staging purposes. **Table 2** lists the Assessor Parcel Numbers (APN) and acreages associated with the acquisition and permanent easements. **Figure 5** shows the location of the fee acquisition and easements.

<sup>1</sup> The guided boring method of pipeline installation is a 3-step process. First, a pilot tube is pushed through the ground from a jacking shaft to a reception shaft at the end location. Second, the pilot bore is enlarged from the jacking shaft to the reception shaft using augers inside a steel casing. Lastly, the pipe is pushed behind the steel casing, and the steel casing is extracted at the reception shaft simultaneously.

<sup>2</sup> Horizontal directional drilling (HDD) is a surface-launched process whereby a pilot bore is drilled by pushing a drill pipe and drill bit from the entry point along a curved pathway to the exit point. When the pilot bore is complete, the bore is reamed in one or more passes to enlarge the bore to the diameter that can accommodate the pipe. The steel pipe is then pulled into the bore back to the entry point.

<sup>3</sup> Bell holes are excavations made at the section joints of a pipeline. PG&E would excavate the soils to make it safe for construction employees to work.

Table 2: Project Acquisition and Permanent Easements

| APN  | Owner                                    | Acreage           |
|--|--|-------------------|
| <b>Fee Acquisition</b>                         |  |                   |
| 0045-3000-070                                  | Fairfield Suisun Unified School District | 1.32 acres        |
| <i>Total Acreages under Fee Acquisition</i>    |  | <i>1.32 acres</i> |
| <b>Permanent Easements</b>                     |  |                   |
| 0045-300-040                                   | James L. & Cheryl C. Campi               | 0.12 acres        |
| 0045-300-070                                   | Fairfield Suisun Unified School District | 0.07 acres        |
| <i>Total Acreages under Permanent Easement</i> |  | <i>0.19 acres</i> |

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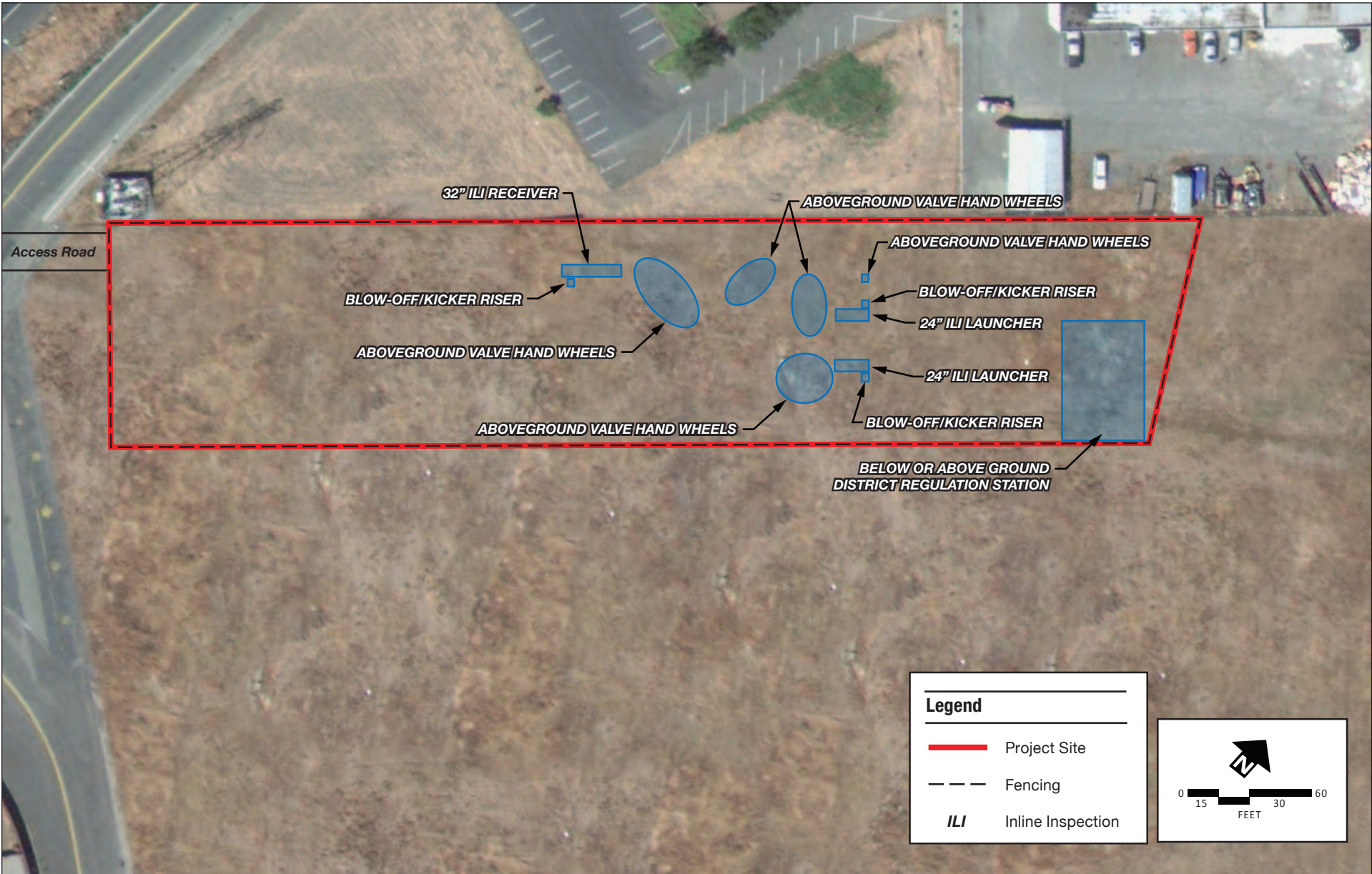


Project Location Map

Figure

Source: Google Earth Pro; Circlepoint, 2011.





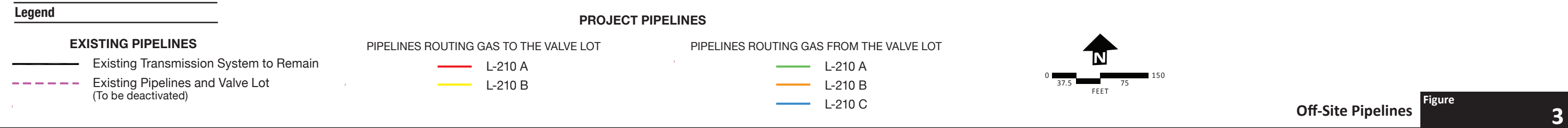
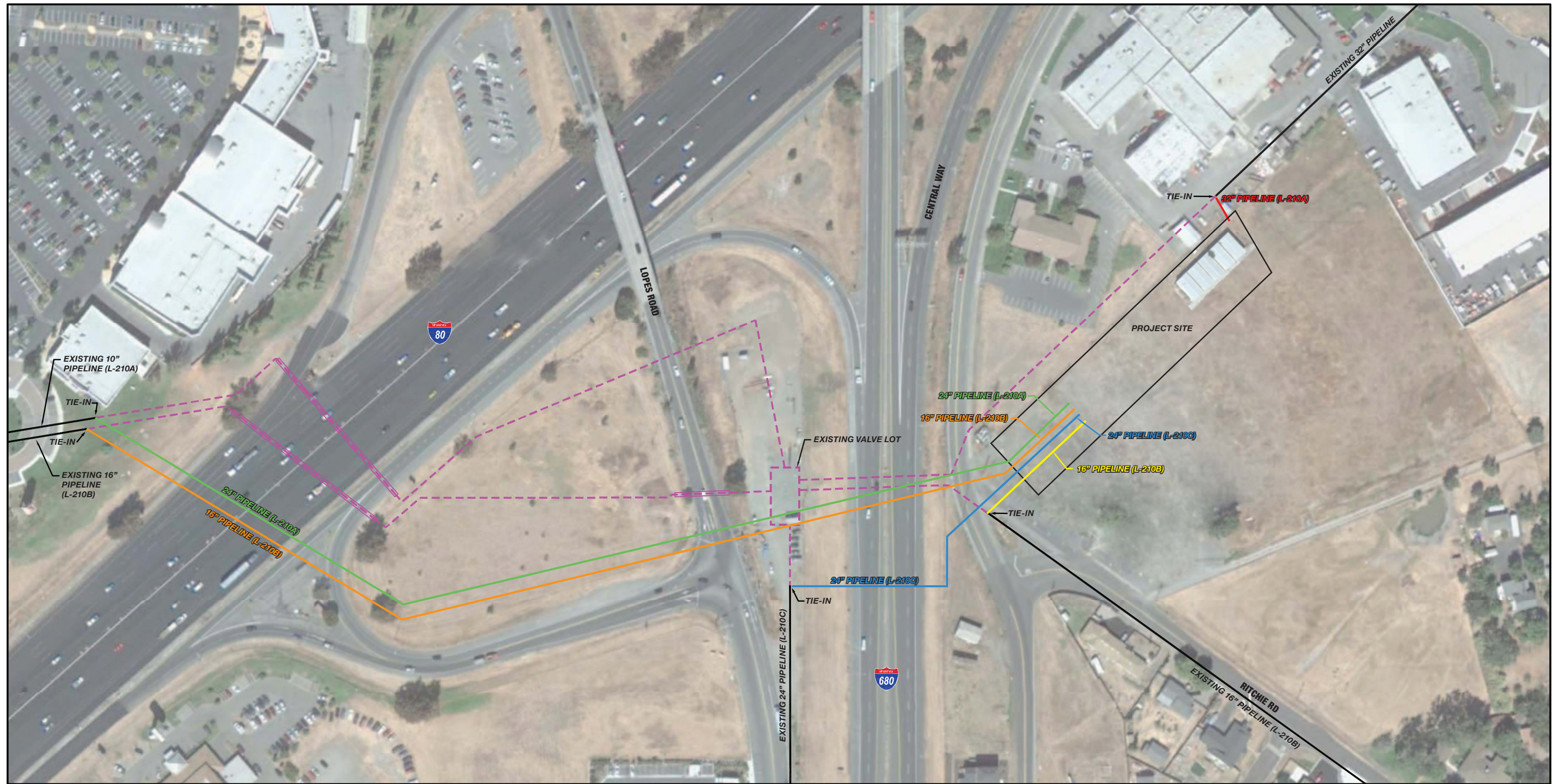
Project Site Plan

Figure

2

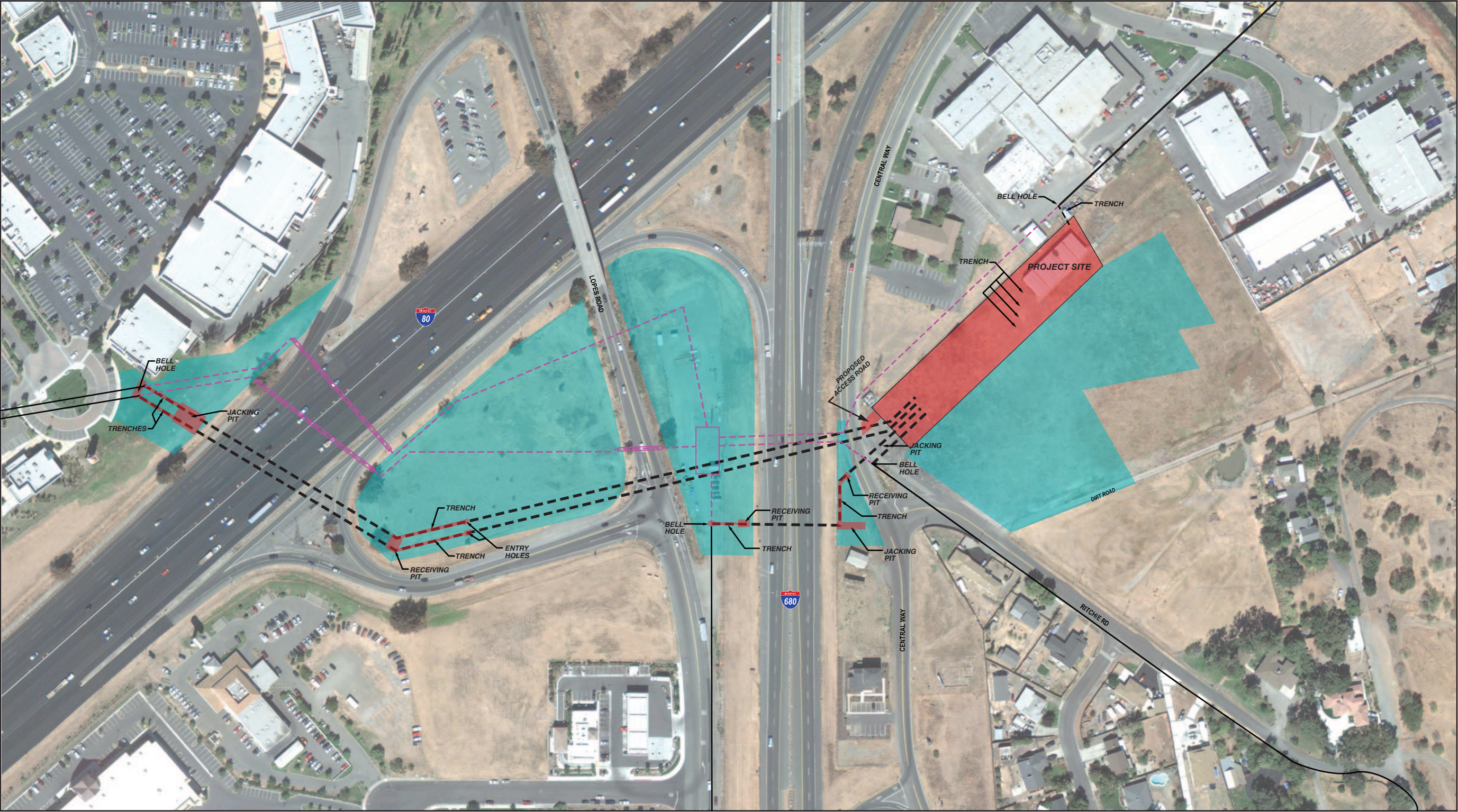
Source: GTS, 2011.







Source: GTS, 2011.






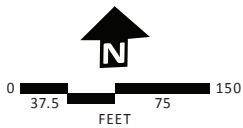


**Legend**

Areas of Disturbance

-  Construction Impact Areas  
(Temporary Construction Easements)
-  Soil Disturbance Area

-  Project Pipeline
-  Existing Pipeline
-  Existing Pipeline  
(To be abandoned)



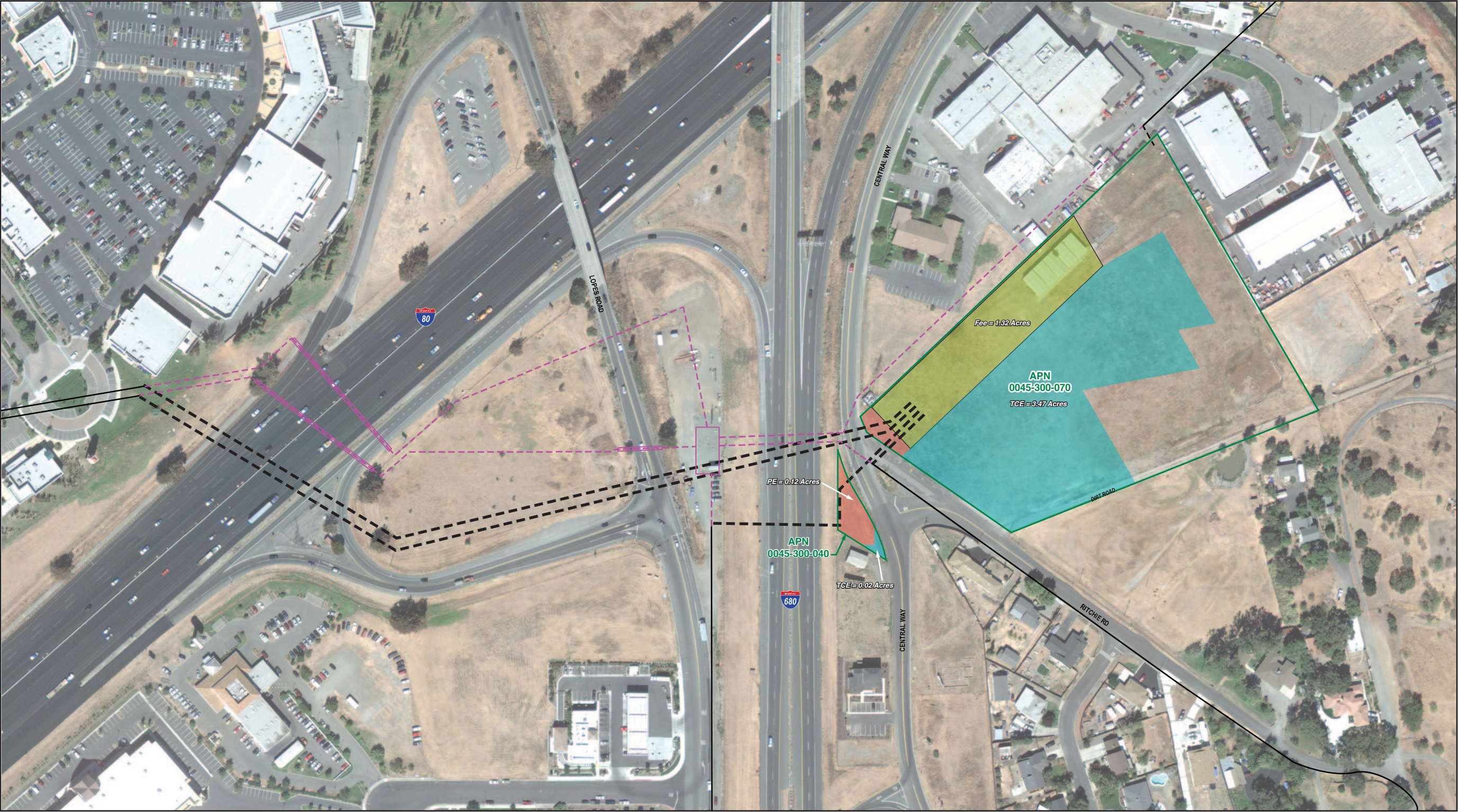
\* Areas of disturbance include permanent and temporary disturbances.

**Area of Disturbance**







Figure

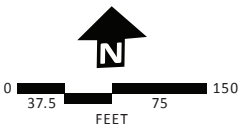
Source: GTS; I-80/I-680/SR-12 Interchange Project, 2011.





**Legend**

- |  |  |
|--|--|
|  Permanent Easement (PE)                      |  Project Pipeline                    |
|  Project Valve Lot Location (Fee Acquisition) |  Existing Pipeline                   |
|  Temporary Construction Easement (TCE)        |  Existing Pipeline (To be abandoned) |
|  APN Parcel                                   |  |



\* Areas of disturbance include permanent and temporary disturbances.

Acquisition and Easement Locations

Figure

Source: GTS; I-80/I-680/SR-12 Interchange Project, 2011.





## Appendix C Title VI Policy Statement

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**DEPARTMENT OF TRANSPORTATION**

OFFICE OF THE DIRECTOR

P.O. Box 942873, MS-49

SACRAMENTO, CA 94273-0001

PHONE (916) 654-5266

FAX (916) 654-6608

TTY 711

*Flex your power!  
Be energy efficient!*


July 20, 2010

**TITLE VI  
POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, or age, please visit the following web page:  
[http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact Charles Wahnnon, Manager, Title VI and Americans with Disabilities Act Program, California Department of Transportation, 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811. Phone: (916) 324-1353 or toll free 1-866-810-6346 (voice), TTY 711, fax (916) 324-1869, or via email: [charles\\_wahnnon@dot.ca.gov](mailto:charles_wahnnon@dot.ca.gov).

  
CINDY MCKIM  
Director



## Appendix D Summary of Relocation Benefits



# **California Department of Transportation Relocation Assistance Program**

## **RELOCATION ASSISTANCE ADVISORY SERVICES**

The California Department of Transportation (the Department) will provide relocation advisory assistance to any person, business, farm or non-profit organization displaced as a result of the Department's acquisition of real property for public use. The Department will assist residential displacees in obtaining comparable decent, safe and sanitary replacement housing by providing current and continuing information on sales price and rental rates of available housing. Non-residential displacees will receive information on comparable properties for lease or purchase.

Residential replacement dwellings will be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees will be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include supplying information concerning federal and state assisted housing programs, and any other known services being offered by public and private agencies in the area.

## **ADDITIONAL INFORMATION**

No relocation payment received will be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments will not be required to move unless at least one comparable "decent, safe and sanitary" replacement residence, open to all persons regardless of race, color, religion, sex or national origin, is available or has been made available to them by the state.

Any person, business, farm or non-profit organization, which has been refused a relocation payment by the Department, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Department's Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available from the Department's Relocation Advisors.

The information above is not intended to be a complete statement of all of the Department's laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of the Department's relocation programs.

**IMPORTANT NOTICE**

To avoid loss of possible benefits, no individual, family, business, farm or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California  
Department of Transportation, District 04  
111 Grand Avenue  
Oakland, CA 94623-0660

**Your Rights and Benefits as a  
Displacee Under the Uniform  
Relocation Assistance Program  
(Residential)  
2007**



***Caltrans***

**California Department of Transportation**

## **Introduction**

In building a modern transportation system, the displacement of a small percentage of the population is often necessary. However, it is the policy of Caltrans that displaced persons shall not suffer unnecessarily as a result of programs designed to benefit the public as a whole.

Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments.

This brochure provides information about available relocation services and payments. If you are required to move as the result of a Caltrans transportation project, a Relocation Agent will contact you. The Relocation Agent will be able to answer your specific questions and provide additional information.

### **Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 As Amended "The Uniform Act"**

The purpose of this Act is to provide for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by federal and federally assisted programs and to establish uniform and equitable land acquisition policies for federal and federally assisted programs.

49 Code of Federal Regulations Part 24 implements the "Uniform Act" in accordance with the following relocation assistance objective:

To ensure that persons displaced as a direct result of federal or federally-assisted projects are treated fairly, consistently and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

*While every effort has been made to assure the accuracy of this booklet, it should be understood that it does not have the force and effect of law, rule, or regulation governing the payment of benefits. Should any difference or error occur, the law will take precedence.*



## Some Important Definitions...

Your relocation benefits can be better understood if you become familiar with the following terms:

Comparable Replacement: means a dwelling which is:

- (1) Decent, safe, and sanitary. (See definition below)
- (2) Functionally equivalent to the displaced dwelling.
- (3) Adequate in size to accommodate the family being relocated.
- (4) In an area not subject to unreasonable adverse environmental conditions.
- (5) In a location generally not less desirable than the location of your displacement dwelling with respect to public utilities and commercial and public facilities, and reasonably accessible to the place of-employment.
- (6) On land that is typical in size for residential development with typical improvements.

Decent, Safe and Sanitary (DS&S): Replacement housing must be decent, safe, and sanitary...which means it meets all of the minimum requirements established by federal regulations and conforms to applicable housing and occupancy codes. The dwelling shall:

- (1) Be structurally sound, weather tight, and in good repair.
- (2) Contain a safe electrical wiring system adequate for lighting and other devices.



- (3) Contain a heating system capable of sustaining a healthful temperature (of approximately 70 degrees) for a displaced person, except in those areas where local climatic conditions do not require such a system.
- (4) Be adequate in size with respect to the number of rooms and area of living space needed to accommodate the displaced person. The Caltrans policy is that there will be no more than 2 persons per room unless the room is of adequate size to accommodate the normal bedroom furnishings for the occupants.
- (5) Have a separate, well-lighted and ventilated bathroom that provides privacy to the user and contains a sink, bathtub or shower stall, and a toilet, all in good working order and properly connected to appropriate sources of water and to a sewage drainage system.

*Note: In the case of a housekeeping dwelling, there shall be a kitchen area that contains a fully usable sink, properly connected to potable hot and cold water and to a sewage drainage system, and adequate space and utility service connections for a stove and refrigerator.*

- (6) Contains unobstructed egress to safe, open space at ground level. If the replacement dwelling unit is on the second story or above, with access directly from or through a common corridor, the common corridor must have at least two means of egress.
- (7) *For a displaced person who is handicapped, be free of any barriers which would preclude reasonable ingress, egress, or use of the dwelling by such displaced person.*

Displaced Person or Displacee: Any person who moves from real property or moves personal property from real property as a result of the acquisition of the real property, in whole or in part, or as the result of a written notice from the agency to vacate the real property needed for a transportation project. In the case of a partial acquisition, Caltrans shall determine if a person is displaced as a direct result of the acquisition.

Residents **not lawfully present** in the United States are not eligible to receive relocation payments and assistance

Relocation benefits will vary, depending upon the type and length of occupancy. As a residential displacee, you will be classified as either a:

- An owner occupant of a residential property (includes mobile homes)
- A tenant occupant of a residential property (includes mobile homes and sleeping rooms)

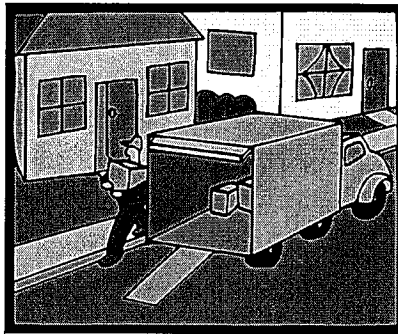
Dwelling: The place of permanent or customary and usual residence of a person, according to local custom or law, including a single family house; a single family unit in a two-family, multi-family, or multi-purpose property; a unit of a condominium or cooperative housing project; a non-housekeeping unit; a mobile home; or any other residential unit.

Owner: A person is considered to have met the requirement to own a dwelling if the person purchases or holds any of the following interests in real property:

- (1) Fee title, a life estate, a land contract, a 99-year lease, oral lease including any options for extension with at least 50 years to run from the date of acquisition; or
- (2) An interest in a cooperative housing project which includes the right to occupy a dwelling; or
- (3) A contract to purchase any interests or estates; or
- (4) Any other interests, including a partial interest, which in the judgment of the agency warrants consideration as ownership.

Tenant: A person who has the temporary use and occupancy of real property owned by another.

# Moving Expenses



If you qualify as a displaced person, you are entitled to reimbursement of your moving costs and certain related expenses incurred in moving. The methods of moving and the various types of moving cost payments are explained. Below.

Displaced individuals and families may choose to be paid on the basis of actual, reasonable moving costs and related expenses, or according to a fixed moving cost schedule. However, to ensure your eligibility and prompt payment of moving expenses, you should contact your Relocation Agent before you move.

## You Can Choose Either:

**Actual Reasonable Moving Costs** - You may be paid for your actual reasonable moving costs and related expenses when a commercial mover performs the move. Reimbursement will be limited to a move of 50 miles or less. Related expenses may include:

- Transportation
- Packing and unpacking personal property.
- Disconnecting and reconnecting household appliances.
- Temporary storage of personal property.
- Insurance while property is in storage or transit.

**OR**

**Fixed Moving Cost Schedule** - You may be paid on the basis of a fixed moving cost schedule. Under this option, you will not be eligible for reimbursement of related expenses listed above. The fixed schedule is designed to cover such expenses.

Examples (Year 2005 Rate):

4 Rooms - \$ 950

7 Rooms - \$1,550

If the furniture is moved with the mobile home, the amount of the fixed payment is based on Schedule B.

Examples (Year 200 Rate):

4 Rooms - \$1,175

7 Rooms - \$1,900

Under the Fixed Move Schedule for a furnished unit (e.g. you are a tenant of an apartment that is furnished by your landlord) is based on Schedule B.

Example (Year 2005 Rate):

1 Room - \$400

Under the Fixed Move Schedule, you will not receive any additional payments for temporary storage, lodging, transportation or utility hook-ups.

## **Replacement Housing Payments**

The type of Replacement Housing Payment (RHP) depends on whether you are an owner or a tenant, and the length of occupancy in the property being acquired.

If you are a qualified **owner occupant** of more than 180 days prior to the initiation of negotiations for the acquisition of your property, you may be entitled to a RHP that consists of:

**Price Differential, and**

**Mortgage Differential, and**

**Incidental Expenses;**

**OR**

**Rent Differential**

If you are a qualified **owner occupant** of more than 90 days but less than 180 days, OR you are a qualified **tenant occupant** of at least 90 days, you may be entitled to a RHP as follows:

### **Rent Differential**

**OR**

### **Downpayment Option**

Length of occupancy simply means counting the number of days that you actually occupied a dwelling before the date of initiation of negotiations by Caltrans for the purchase of the property. The term "initiation of negotiations" means the date Caltrans makes the first personal contact with the owner of real property, or his/ her representative, to give him/her a written offer for the property to be acquired.

*Note: If you have been in occupancy less than 90 days before the initiation of negotiations and the property is subsequently acquired, or if you move onto the property after the initiation of negotiations and you are still in occupancy on the date of acquisition, you may or may not be eligible for a Replacement Housing Payment. Check with your Relocation Agent before you make any decision to vacate your property.*

## **For Owner Occupants of 180 Days or More**

If you qualify as a 180-day owner occupant, you may be eligible -- in addition to the fair market value of your property -- for a Replacement Housing Payment that consists of a Price Differential, Mortgage Differential and/or Incidental Expenses.

The **Price Differential** payment is the amount by which the cost of a replacement dwelling exceeds the acquisition cost of the displacement dwelling. This payment will assist you in purchasing a comparable decent, safe, and sanitary (DS&S) replacement dwelling. Caltrans will compute the maximum payment you may be eligible to receive.

In order to receive the full amount of the calculated price differential, you must spend at least the amount calculated by Caltrans on a replacement property

The **Mortgage Differential** payment will reimburse you for any increased mortgage interest costs you might incur because the interest rate on your new mortgage exceeds the interest rate on the property acquired by Caltrans. The payment computation is complex as it is based on prevailing rates, your existing loan and your new loan. Also, a part of this payment may be prorated such as reimbursement for a portion of your loan origination fees and mortgage points.

To be eligible to receive this payment, the acquired property must have been encumbered by a bona fide mortgage which was a valid lien for at least 180 days prior to the initiation of negotiations.

You may also be reimbursed for any actual and necessary **Incidental Expenses** that you incur in relation to the purchase of your replacement property. These expenses may be those costs for title search, recording fees, credit report, appraisal report, and certain other closing costs associated with the purchase of property. You will not be reimbursed for any recurring costs such as prepaid real estate taxes and property insurance.

If the total amount of your **Replacement Housing Payment** (Price Differential, Mortgage Differential and Incidental Expenses) exceeds \$22,500, the payment must be deposited directly into an escrow account or paid directly to the mortgage company.

## EXAMPLES OF PRICE DIFFERENTIAL PAYMENT COMPUTATION:

Assume that Caltrans purchases your property for \$98,000. After a thorough study of available, decent, safe and sanitary dwellings on the open market, Caltrans determines that a comparable replacement property will cost you \$100,000. If your purchase price is \$100,000, you will receive \$2,000 (see *Example A*).

If your actual purchase price is more than \$100,000, you pay the difference (see *Example B*). If your purchase price is less than \$100,000, the differential payment will be based on actual costs (see *Example C*).

How much of a differential payment you receive depends on how much you actually spend on a replacement dwelling as shown in these examples:

### Caltrans' Computation

|  |                   |
|--|-------------------|
| Comparable Replacement Property and Mobile Home    | \$100,000         |
| Acquisition Price of Your Property and Mobile Home | <u>-\$ 98,000</u> |
| Maximum Price Differential                         | \$ 2,000          |

### Example A

|                                    |                   |
|------------------------------------|-------------------|
| Purchase Price of Replacement      | \$100,000         |
| Comparable Replacement Property    | \$100,000         |
| Acquisition Price of Your Property | <u>-\$ 98,000</u> |
| Maximum Price Differential         | \$ 2,000          |

### Example B

|  |                  |
|--|------------------|
| Purchase Price of Replacement Property | \$105,000        |
| Comparable Replacement Property        | \$100,000        |
| Acquisition Price of Your Property     | <u>\$ 98,000</u> |
| Maximum Price Differential             | \$ 2,000         |
| You Must Pay the Additional            | \$ 5,000         |

### Example C

|                                    |                  |
|------------------------------------|------------------|
| Comparable Replacement Property    | \$100,000        |
| Purchase Price of Replacement      | \$ 99,000        |
| Acquisition Price of Your Property | <u>\$ 98,000</u> |
| Price Differential                 | \$ 1,000         |

*In Example C you will only receive \$1,000 - not the full amount of the Caltrans "Comparable Replacement Property" because of the "Spend to Get" requirements.*



**IN ORDER FOR A "180 DAY OWNER OCCUPANT" TO RECEIVE THE FULL AMOUNT OF THEIR REPLACEMENT HOUSING PAYMENT** (*Price Differential, Mortgage Differential and Incidental Expenses*), **you must:**

A) Purchase and occupy a DS&S replacement dwelling within one year after the later of:

(1) The date you first receive a notification of an available replacement house, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the closing of escrow on State's acquisition),

**AND**

B) Spend at least the amount of the Caltrans "Comparable Replacement Property" for a replacement property,

**AND**

C) File a claim for relocation payments within 18 months of the later:

(1) The date you vacate the property acquired by Caltrans, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the close of escrow on State's acquisition)

**You will not be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. Also, you will also receive at least 90 days' written notice before you must move.**

## For Owner Occupants and Tenants of 90 Days or More

If you qualify as a 90-day occupant (either as an owner or tenant), you may be eligible for a Replacement Housing Payment in the form of a Rent Differential.

The **Rent Differential** payment is designed to assist you in renting a comparable decent, safe and sanitary replacement dwelling. The payment is based on the difference between the base monthly Rent for the property acquired by Caltrans (including average monthly cost for utilities) and the lesser of:

- a) The monthly rent and estimated average monthly cost of utilities for a comparable replacement dwelling as determined by Caltrans, **OR**
- b) The monthly rent and estimated average monthly cost of utilities for the decent, safe and sanitary dwelling that you actually rent as a replacement dwelling.

Utility costs are those expenses you incur for heat, lights, water and sewer - regardless of the source (e.g. electricity, propane, and septic system). It does not include garbage, cable, telephone, or security. The utilities at your property are the average costs over the last 12 months. The utilities at the comparable replacement property are the estimated costs for the last 12 months for the type of dwelling and area used in the calculation.

This difference is multiplied by 42 months and may be paid to you in a lump sum payment or in periodic installments in accordance with policy and regulations.

In order to receive the full amount of the calculated Rent Differential, you must spend at least the amount calculated by Caltrans on a replacement property.

This payment may - with certain limitations - be converted to a **Downpayment Option** to assist you in purchasing a replacement property.

### **Example of Rent Differential Payment Computation:**

After a thorough study of comparable, decent, safe and sanitary dwellings that are available for rent, Caltrans determines that a comparable replacement property will rent for \$325.00 per month.

#### **Caltrans Computation (rates are per month)**

|  |              |
|--|--------------|
| Rental Rate for Comparable Replacement Property    | \$ 325       |
| PLUS average estimated utilities costs             | <u>+ 100</u> |
| TOTAL Cost to Rent Comparable Replacement Property | = \$ 425     |

|                                       |             |
|---------------------------------------|-------------|
| Rental Rate for Your Current Property | \$ 300      |
| PLUS average utilities costs          | <u>+ 90</u> |
| TOTAL Cost to Rent Current Property   | = \$ 390    |

|  |              |
|--|--------------|
| Comparable Replacement Property including utilities    | \$ 425       |
| Cost you pay to rent your property including utilities | <u>+ 390</u> |
| Difference   | = \$ 35      |

Multiplied by 42 months = \$1,470 Rent Differential

#### **Example A:**

|  |        |
|--|--------|
| Rental Rate for a Replacement Property including       |        |
| Estimated average utilities costs                      | \$ 525 |
| Comparable Replacement Property including utilities    | \$ 425 |
| Cost you pay to rent your property including utilities | \$ 390 |

Since \$425 is less than \$525, the Rent Differential is based on the difference between \$390 and \$425.

Rent Differential (\$35 x 42 months = \$1,470)

*In this case you spent "at least" the amount of the Comparable Replacement Property on the replacement property and will receive the full amount.*

#### **Example B:**

|  |        |
|--|--------|
| Rental Rate for a Replacement Property including       |        |
| Estimated average utilities costs                      | \$ 400 |
| Comparable Replacement Property including utilities    | \$ 425 |
| Cost you pay to rent your property including utilities | \$ 390 |

Since \$400 is less than \$525, the Rent Differential is based on the difference between \$400 and \$390.

Rent Differential (\$10 x 42 months = \$420)

*In this case you spent "less than" the amount of the Comparable Replacement Property on the replacement property and will not receive the full amount.*

**IN ORDER FOR A "90 DAY OWNER OCCUPANT" TO RECEIVE THE FULL AMOUNT OF THEIR REPLACEMENT HOUSING PAYMENT (Rent Differential), you must:**

A) Rent and occupy a DS&S replacement dwelling within one year after the later of:

(1) The date you first receive a notification of an available replacement house, **OR**

(2) The day you vacate the property acquired by Caltrans.

**AND**

B) Spend at least the amount of the Caltrans "Comparable Replacement Property" to rent a replacement property,

**AND**

C) File a claim for relocation payments within 18 months of the later of:

(1) The date you vacate the property acquired by Caltrans, **OR**

(2) The date that Caltrans has paid the acquisition cost of your current dwelling (usually the close of escrow on State's acquisition)

**You will not be eligible to receive any relocation payments until the State has actually made the first written offer to purchase the property. And, you will also receive at least 90 days' written notice before you must move.**

*Note1: The time periods for a 90-day owner occupant are different than a 180-day owner occupant.*

*Note 2: If the Rent Differential is converted to a Downpayment Option, there is no "spend-to-get" requirement.*

## **DOWN PAYMENT OPTION**

The Rent Differential payment may - with certain limitations - be converted to a **Down Payment Option** to assist you in purchasing a replacement property. The down payment option is a direct conversion of the Rent Differential payment.

If the Caltrans calculated Rent Differential is between \$0 and \$5,250, your down payment option will be \$5,250, which can be used towards the purchase of a replacement decent, safe and sanitary dwelling.

If the Rent Differential is over \$5,250, you may be able to convert the entire amount of the Rent Differential to a downpayment option.

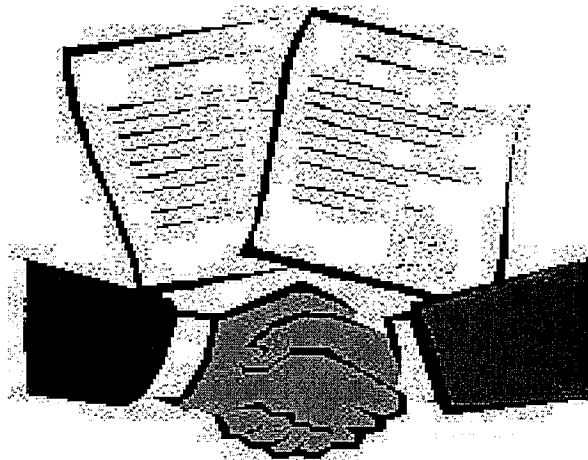
The down payment option must be used for the acquisition of the replacement dwelling, plus any eligible incidental expenses (see "180-day Owner Occupants Incidental Expenses") related to the purchase of the property. You must work closely with your Relocation Agent to ensure you can utilize the full amount of your down payment option towards the purchase.

If any portion of the Rent Differential was used prior to the decision to convert to a down payment option, those advance payments will be deducted from the entire benefit.

## **LAST RESORT HOUSING**

On most projects, an adequate supply of housing will be available for sale and for rent, and the benefits provided will be sufficient to enable you to relocate to comparable housing. However, there may be projects in certain locations where the supply of available housing is insufficient to provide the necessary housing for those persons being displaced. In such cases, Caltrans will utilize a method called Last Resort Housing. Last Resort Housing allows Caltrans to construct, rehabilitate or modify housing in order to meet the needs of the people displaced from a project. Caltrans can also pay above the statutory limits of \$5,250 and \$22,500 in order to make available housing affordable.

## Relocation Advisory Assistance



Any individual, family, business or farm displaced by Caltrans shall be offered relocation advisory assistance for the purpose of locating a replacement property. Relocation services are provided by qualified personnel employed by Caltrans. It is their goal and desire to be of service to you and assist in any way possible to help you successfully relocate.

A Relocation Agent from Caltrans will contact you personally. Relocation services and payments will be explained to you in accordance with your eligibility. During the initial interview with you, your housing needs and desires will be determined as well as your need for assistance. You cannot be required to move unless at least one comparable replacement dwelling is made available to you.

You can expect to receive the following services, advice and assistance from your Relocation Agent who will:

- Explain the relocation benefits and eligibility requirements.
- Provide the amount of the replacement housing payments in writing.
- Assure the availability of a comparable property before you move.
- Inspect possible replacement residential units for DS&S compliance.
- Provide information on counseling you can obtain to help minimize hardships in adjusting to your new location.
- Assist you in completing loan documents, rental applications or Relocation Claims Forms.

AND provide information on:

- Security deposits
- Interest rates and terms
- Typical down payments
- VA and FHA loan requirements
- Real property taxes.
- Consumer education literature on housing

If you desire, your Relocation Agent will give you current listings of other available replacement housing. Transportation will be provided to inspect available housing, especially if you are elderly or handicapped. Though you may use the services of a real estate broker, Caltrans cannot provide a referral.

Your Relocation Agent is familiar with the services provided by others in your community and will provide information on other federal, state, and local housing programs offering assistance to displaced persons. If you have special problems, your Relocation Agent will make every effort to secure the services of those agencies with trained personnel who have the expertise to help you.

If the highway project will require a considerable number of people to be relocated, Caltrans will establish a temporary Relocation Field Office on or near the project. Project relocation offices will be open during convenient hours and evening hours if necessary.

In addition to these services, Caltrans is required to coordinate its relocation activities with other agencies causing displacements to ensure that all persons displaced receive fair and consistent relocation benefits.

Remember - YOUR RELOCATION AGENT is there to offer advice and assistance. Do not hesitate to ask questions. And be sure you fully understand all of your rights and available benefits.



## YOUR RIGHTS AS A DISPLACEE

All eligible displacees have a freedom of choice in the selection of replacement housing, and Caltrans will not require any displaced person to accept a replacement dwelling provided by Caltrans. If you decide not to accept the replacement housing offered by Caltrans, you may secure a replacement dwelling of your choice, providing it meets DS&S housing standards. Caltrans will not pay more than your calculated benefits on any replacement property.

The most important thing to remember is that the replacement dwelling you select must meet the basic "decent, safe, and sanitary" standards. Do not execute a purchase agreement or a rental agreement until a representative from Caltrans has inspected and certified in writing that the dwelling you propose to occupy meets the basic standards. **DO NOT jeopardize** your right to receive a replacement housing payment by moving into a substandard dwelling.

It is important to remember that your relocation benefits will not have an adverse affect on your:

- Social Security Eligibility
- Welfare Eligibility
- Income Taxes



In addition, the Title VIII of the Civil Rights Act of 1968 and later acts and amendments make discriminatory practices in the purchase and rental of most residential units illegal if based on race, color, religion, sex, or national origin.

Whenever possible, minority persons shall be given reasonable opportunities to relocate to decent, safe, and sanitary replacement dwellings, not located in an area of minority concentration, and that is within their financial means. This policy, however, does not require Caltrans to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Caltrans' Non-Discrimination Policy ensures that all services and/or benefits will be administered to the general public without regard to race, color, national origin, or sex in compliance with Title VI of the 1964 Civil Rights Act (42 USC 2000d. et seq.).

And you always have the Right to Appeal any decision by Caltrans regarding your relocation benefits and eligibility.

Your Right of Appeal is guaranteed in the "Uniform Act" which states that any person may file an appeal with the head of the responsible agency if that person believes that the agency has failed to properly determine the person's eligibility or the amount of a payment authorized by the Act.

If you indicate your dissatisfaction, either verbally or in writing, Caltrans will assist you in filing an appeal and explain the procedures to be followed. You will be given a prompt and full opportunity to be heard. You have the right to be represented by legal counsel or other representative in connection with the appeal (but solely at your own expense).

Caltrans will consider all pertinent justifications and materials submitted by you and other available information needed to ensure a fair review. Caltrans will provide you with a written determination resulting from the appeal with an explanation of the basis for the decision. If you are still dissatisfied with the relief granted, Caltrans will advise you that you may seek judicial review.

## NOTES

# **Sus Derechos y Beneficios Como Una Persona Desplazada Bajo el Programa Uniforme De Asistencia Para Reubicación (Residencial)**

## **Introducción**

En la construcción de un sistema moderno de transportación, el desplazamiento de un pequeño porcentaje de la población es a menudo necesario. Sin embargo, la política de Caltrans es que las personas desalojadas no tengan que sufrir innecesariamente como resultado de los programas diseñados para el beneficio del público en general.

Los individuos y familias desplazadas pueden ser elegibles para recibir servicios de asesoramiento y pagos de reubicación.

Este folleto provee información acerca de los servicios y pagos de reubicación disponibles. Si usted es requerido a mudarse como resultado de un proyecto de transportación, un Agente de Reubicación se comunicará con usted. El Agente de Reubicación le contestará preguntas específicas y le proveerá información adicional.

## **Ley de Procedimiento Uniforme de Asistencia para Rubicación y Adquisición de Bienes Raíces de 1970, Enmendada “La Ley Uniforme”**

El propósito de esta Ley es proveer tratamiento igual y uniforme para las personas que son desplazadas de sus hogares, negocios, u operaciones agrícolas por programas federales o programas que son asistidos con fondos federales y para establecer uniformidad e igualdad en la política de adquisición de tierras por programas federales y programas asistidos con fondos federales.

La ley trata de asegurar que las personas desplazadas directamente como resultado de proyectos federales o proyectos asistidos con fondos federales sean tratados con igualdad, consistencia y equidad para que esas personas no sufran

daños desproporcionados como resultado de proyectos designados para el beneficio del público en general.

*Aunque se ha hecho un esfuerzo para asegurar la precisión de este folleto, debe de ser entendido que no tiene la fuerza o efectos de la ley, regla, o regulación que gobierna el pago de los beneficios. Si hay diferencias o error, la ley tomará precedencia.*

## **Algunas Definiciones Importantes...**

Sus beneficios de reubicación pueden ser entendidos mejor si usted entiende los siguientes términos:

***Vivienda de Restitución comparable:*** significa una propiedad que es:

- (1) Decente, segura y sanitaria. (Vea la definición abajo.)
- (2) Equivalente funcionalmente a la propiedad desplazada.
- (3) Adecuada en tamaño para acomodar a la familia que esta siendo reubicada.
- (4) En un área que no esté sujeta a condiciones irrazonablemente adversas.
- (5) En una localidad generalmente no menos deseable que la localidad de su propiedad desplazada con respecto a servicios públicos, y acceso razonable al lugar de empleo.
- (6) En una parcela de tamaño típico para el desarrollo de una residencia de tamaño normal.

***Decente, Segura y Sanitaria (DS&S):*** La vivienda de restitución debe de ser decente, segura y sanitaria ... que significa que llena todos los requisitos mínimos establecidos por las regulaciones federales y conforme a los códigos de ocupación de viviendas aplicables. La propiedad será:

- (1) Buena estructuralmente, cerrada a las condiciones climáticas y en buen estado de reparación.
- (2) Contiene un sistema eléctrico adecuado para iluminación y otros aparatos.
- (3) Contiene un sistema de calefacción capaz de mantener una temperatura saludable (de aproximadamente 70 grados) para la persona desplazada,

con excepción en aquellas áreas donde las condiciones climáticas no requieren dicho sistema.

- (4) Debe de ser adecuada en tamaño con respecto al número de cuartos y áreas para vivir necesarias para acomodar a las personas desplazadas. Es política de Caltrans que más de dos personas no deben de estar en un solo cuarto, a menos que el tamaño del cuarto sea suficientemente adecuado para acomodar los muebles de dormitorios necesarios de los ocupantes.
- (5) Tener un baño separado, bien iluminado y ventilado que sea privado a los usuarios y que contenga un lavamanos, una tina o regadera, y un excusado, todos en buenas condiciones y apropiadamente conectados a los sistemas de aguas negras y aguas potables.

***Nota:*** En el caso de una propiedad residencial, debe de haber una área de cocina que contenga un lavatrastos usable, propiamente conectado a agua caliente y agua fría, y al sistema de drenaje, y con espacio adecuado para utilizar los servicios y conexiones para una estufa y un refrigerador.

- (6) Que contenga salidas sin obstrucción y seguros espacio abierto al nivel del suelo. Si la propiedad de restitución está en el segundo piso o más arriba, que tenga acceso directamente desde o a través de un corredor, y que éste corredor común debe de tener al menos dos salidas.
- (7) Si la persona desplazada es incapacitada físicamente, debe de ser libre de cualquier barrera que le impidan la entrada o salida, o uso razonable de la propiedad por dicha persona incapacitada.

***Persona Desplazada:*** Cualquier individuo o familia que se mueva de una propiedad o mueva sus bienes personales de una propiedad como resultado de la adquisición de bienes raíces, en todo o en parte, o como resultado de una notificación escrita de una agencia pidiéndole que desocupe la propiedad que se necesita para un proyecto de transportación. En el caso de una adquisición parcial, Caltrans debe de determinar si la persona es desplazada directamente como resultado de esta adquisición.

Los residentes **que no están legalmente** en los Estados Unidos no son elegibles para recibir pagos y asistencia de reubicación.

Los beneficios de reubicación van a variar dependiendo del tipo y tiempo de ocupación. Como una persona desplazada de una unidad residencial usted puede ser clasificado como:

- Un dueño ocupante de una propiedad residencial (incluyendo casas movibles)
- Un inquilino ocupante de una propiedad residencial (incluyendo casas movibles y cuartos para dormir)

**Vivienda:** El lugar de permanencia o residencia regular y usual de una persona, de acuerdo a las costumbres locales o la ley, incluyendo una unidad familiar, una unidad familiar en un complejo doble o multi-familiar, o una propiedad de uso múltiple, una unidad de condominio o proyecto de vivienda en cooperativa, una unidad libre de mantenimiento doméstico, una casa movable, o cualquier otra unidad residencial.

**Dueño:** Una persona es considerada que llena los requisitos de dueño de una casa, si esta persona compra, tiene título o tiene algunos de los siguientes intereses en una propiedad:

- (1) Una escritura de propiedad, un interés de por vida en una propiedad, un contrato de renta por 99 años, un contrato oral de renta incluyendo una opción para extensión con al menos 50 años que queden después de la fecha de adquisición; o
- (2) El interés en un proyecto de vivienda en cooperativa que incluya el derecho de ocupar una vivienda; o
- (3) Un contrato de compra de interés, o bienes raíces.
- (4) Algún otro interés, incluyendo intereses parciales, que a juicio de la agencia garanticen los pagos como dueño.

**Inquilino:** Una persona que tiene el uso y la ocupación temporal de una propiedad de la que otro es dueño.

## Gastos de Mudanza

Si usted califica como persona desplazada, usted tiene derecho a reembolso de sus gastos de mudanza y a ciertos gastos relacionados incurridos durante el traslado. Los métodos de traslado y los distintos tipos de pagos para gastos de mudanza son explicados abajo.

Los individuos y familias desplazadas pueden escoger un pago basado en los gastos reales, razonables y los gastos relacionados, o de acuerdo a una lista de costos fijos de mudanza. Sin embargo, para asegurar su elegibilidad y el pago rápido de sus gastos de mudanza, usted debe de ponerse en contacto con su Agente de Rubicación antes de mudarse.

### Usted Puede Elegir Entre:

**Los Gastos Razonables de Mudanza** – A usted se le puede pagar por los gastos razonables de mudanza y gastos relacionados cuando una compañía comercial de mudanza hace la mudanza. Los reembolsos deberán ser limitados a una mudanza de 50 millas o menos. Los gastos relacionados pueden incluir:

- Transportación.
- Empaque y desempaque de propiedades personales.
- Desconexión y reconexión de aparatos eléctricos.
- Almacenaje temporal de propiedades personales.
- Seguros cuando la propiedad está almacenada o en tránsito.

Ó

**Lista de Costos Fijos de Mudanza** – A usted se le puede pagar basado en una lista de costos fijos de mudanza. Bajo esta opción, usted no puede ser elegible para reembolsos de gastos relacionados incluidos en la lista de arriba. Esta lista de gastos fijos está designada a cubrir todos esos gastos.

Por ejemplo (Tarifa para el año 2001)

4 Cuartos - \$ 950

7 Cuartos - \$1,550

Los costos fijos de mudanza para una unidad amueblada (ejemplo, usted es inquilino en un apartamento donde los muebles pertenecen al dueño de la vivienda) están basados en la Tabla de Honorarios B.

Ejemplos (Taza en el año 2001):

4 Cuartos - \$475

7 Cuartos - \$625

Bajo la lista de Pago Fijos de Mudanza, usted no puede recibir ningún pago adicional por almacenamiento temporario, vivienda temporaria, transportación o conexiones de servicios públicos.



## Pagos Para Vivienda de Restitución

El tipo de Pago Para Vivienda de Restitución (RHP) depende de si usted es dueño o un inquilino, y en el tiempo de ocupación que tiene de la propiedad que será adquirida.

Si usted es calificado **como dueño ocupante** de más de 180 días antes de la iniciación de negociaciones para la adquisición de su propiedad, usted puede tener derecho a recibir RHP que consiste en:

**Diferencia de Precio, y**

**Diferencia para Hipoteca, y**

**Gastos Incidentales**

**O**

**Diferencia Para Rentar**

Si usted es calificado como **dueño ocupante** de más de 90 días, pero menos de 180 días, O si usted es calificado como **inquilino ocupante** de al menos 90 días, usted puede tener derecho a recibir RHP así:

**Diferencia Para Rentar**

**U**

**Opción para Enganche**

Tiempo de ocupación simplemente significa contar el número de días que usted actualmente ocupó la vivienda antes de la fecha de iniciación de negociaciones por Caltrans para la compra de la propiedad. El término “iniciación de negociaciones” significa la fecha que Caltrans hizo el primer contacto personal con el dueño de bienes raíces, o su representante, para darle a el/ella una oferta escrita para la adquisición de la propiedad.

*Nota: Si usted ocupó una vivienda por **menos de 90 días** antes de la iniciación de negociaciones y la propiedad es posteriormente adquirida, o si usted se mudó a la propiedad después de la iniciación de negociaciones y usted todavía*

*ocupaba la propiedad a la fecha de adquisición, usted puede ser elegible para un Pago para Restitución de Vivienda, basado en una guía de elegibilidad establecida. Consulte con su Agente de Reubicación antes de que haga cualquier decisión de mudarse de su propiedad.*

## **Para Ocupantes de 180 Días o Más**

Si usted califica como dueño ocupante de 180 días, puede ser elegible – además del valor equitativo en el mercado de su propiedad – para un Pago de Restitución de Vivienda que consiste en un pago de Diferencia de Precio y/o Gastos Incidentales.

El Pago de **Diferencia de Precio** es la cantidad por la que el costo de una vivienda de restitución excede el costo de adquisición de la vivienda desplazada. Este pago le asistirá en la compra de una vivienda decente, segura, y sanitaria (DS&S). Caltrans computará el pago máximo que usted puede ser elegible para recibir. (Vea un ejemplo en la página 15.)

Para recibir la cantidad total de la diferencia de precio calculadas, usted debe de gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

El pago de **Diferencia de Hipoteca** le será reembolsado por cualquier aumento del costo de interés en la hipoteca que usted haya incurrido porque la tasa de interés en su nueva hipoteca excede la tasa de interés de la propiedad adquirida por Caltrans. La computación del pago es complicada ya que está basada en las tasas típicas entre su préstamo anterior y su préstamo nuevo. También, una parte de los pagos pueden ser prorrateado como reembolso por una porción de los honorarios de su préstamo y los puntos (intereses) de la hipoteca.

Para ser elegible para recibir este pago, la propiedad adquirida debe de ser hipotecada con una hipoteca de buena fé, la cual fue un crédito válido de por lo menos 180 días antes de la iniciación de negociaciones.

Usted también puede ser reembolsado por cualquier **Gasto incidental** actual y necesario que usted incurra en relación con la compra de su propiedad de restitución. Estos gastos pueden ser los costos por búsqueda de título, honorarios de copia en el Registro, reporte de crédito, reporte de evaluación, y ciertos otros gastos de cierre de escritura. Usted no puede ser reembolsado por ningún gasto frecuente como pre-pagos de impuesto de bienes raíces y seguro de propiedad.

Si la cantidad total de su **Pago de Vivienda de Restitución** (Diferencia de Precio, Diferencia Para Hipoteca y Gastos Incidentales) excede \$22,500, el pago debe de ser depositado directamente en una cuenta fiduciaria o ser pagado directamente a la compañía financiera.

### **EJEMPLO DE COMO SE CALCULA LA DIFERENCIA DE PAGO:**

Suponga que Caltrans compra su propiedad por \$98,000. Después de un estudio completo de viviendas disponibles en el mercado, que sean decentes, seguras y sanitarias, Caltrans determina que la propiedad de restitución comparable en el mercado abierto le costará \$100,000. Si su precio de compra es \$100,000 usted recibirá \$2,000 (*Vea el Ejemplo A*)

Si su precio de compra es de más de \$100,000, usted paga la diferencia (*vea el Ejemplo B*). Si su precio de compra es menos de \$100,000, el pago se basará en los costos actuales (*vea el Ejemplo C*).

La cantidad que usted recibe en un pago diferencial dependerá de cuanto usted realmente gasta en una vivienda de restitución, como se muestra en estos ejemplos.

#### **Computación de Caltrans**

|  |                    |
|--|--------------------|
| Precio Comparable de la Propiedad de Restitución | \$100,000          |
| Precio de Adquisición de su Propiedad            | <u>– \$ 98,000</u> |
| Diferencia Máxima de Precio                      | \$ 2,000           |

#### **Ejemplo A**

|                                       |                    |
|---------------------------------------|--------------------|
| Precio de Compra de Restitución       | \$100,000          |
| Propiedad Comparable de Restitución   | \$100,000          |
| Precio de Adquisición de su Propiedad | <u>– \$ 98,000</u> |
| Diferencia Máxima de Precio           | \$ 2,000           |

## Ejemplo B

|  |                    |
|--|--------------------|
| Precio de Compra de Restitución            | \$105,000          |
| Propiedad Comparable de Restitución        | \$100,000          |
| Precio de Adquisición de su Propiedad      | <u>– \$ 98,000</u> |
| Diferencia Máxima de Precio                | \$ 2,000           |
| Usted Debe de Pagar el Precio Adicional de | \$ 5,000           |

## Ejemplo C

|                                       |                    |
|---------------------------------------|--------------------|
| Propiedad Comparable de Restitución   | \$100,000          |
| Precio de Compra de Restitución       | \$ 99,000          |
| Precio de Adquisición de su Propiedad | <u>– \$ 98,000</u> |
| Diferencia de Precio                  | \$ 1,000           |

*En el ejemplo C usted solo recibirá \$1,000 – no la cantidad completa de “La propiedad Comparable de Restitución” por los requisitos de “Gastar para Obtener” de Caltrans.*

**PARA QUE UN “DUENO OCUPANTE DE 180 DÍAS” RECIBA LA CANTIDAD TOTAL DE SUS BENEFICIOS DE PAGOS PARA VIVIENDA** (*Diferencia de Precio, Diferencia de Hipoteca y Gastos Incidentales*), usted debe:

A) Comprar y ocupar una vivienda de restitución que sea DS&S dentro de al menos un año desde la fecha más tarde de:

(1) La fecha en que recibió la primera notificación de una casa de restitución, **O**

(2) La fecha que Caltrans pagó los costos de adquisición de su vivienda actual (usualmente los gastos de cierre de escritura en la adquisición del Estado.)

**Y**

B) Haber gastado al menos la cantidad que Caltrans estableció para “La Propiedad Comparable de Restitución” para la propiedad de restitución.

**Y**

C) Reportar un reclamo para pago para reubicación dentro de los 18 meses de la fecha más tarde de:

- (1) La fecha en que se mudó de la propiedad adquirida por Caltrans, **O**
- (2) La fecha en que Caltrans le pagó los costos de adquisición de su vivienda actual (usualmente al cierre de escritura en la adquisición del Estado.)

Usted no será elegible para recibir ningún pago de reubicación hasta que el Estado haya hecho la primera oferta por escrito de la compra de la propiedad. Usted también recibirá una notificación escrita por lo menos 90 días antes de tener que mudarse.

## **Para Dueños Ocupantes e Inquilinos de 90 Días o Más**

**Si usted califica como un ocupante (ya sea como dueño o inquilino) de 90 días, usted puede ser elegible para un Pago de Vivienda de Restitución en la forma de Diferencia para Rentar.**

El pago de la **Diferencia para Rentar** es designado para asistirle en la renta de una vivienda comparable que sea decente, segura y sanitaria. El pago será basado en la diferencia entre la renta básica mensual por la propiedad adquirida por Caltrans (incluyendo el promedio del costo mensual de servicios públicos) y el menor de:

- a) La renta mensual y el promedio del costo mensual estimado de los servicios públicos para una vivienda comparable de restitución determinada por Caltrans, **O**
- b) La renta mensual y el promedio del costo mensual estimado de los servicios públicos para una vivienda decente, segura y sanitaria que usted rente como vivienda de restitución.

Gastos de servicios públicos son esos gastos que usted incurre por calefacción, luz, agua, aguas negras y basura – sin importar quien los provea (ejemplo, electricidad, gas propano, y sistema séptico.) No incluye cable de televisión, teléfono, o seguridad. Los servicios públicos en su propiedad de restitución será el estimado del promedio de costos por los 3 últimos meses para el tipo de vivienda y área usados en los cálculos.

Esta diferencia es multiplicada por 42 meses y le puede ser pagado en una sola suma o en pagos periódicos de acuerdo con la política y regulaciones. (Vea un ejemplo en la página 21.)

Para recibir la cantidad calculada total de la diferencia para rentar, usted debe gastar al menos la cantidad calculada por Caltrans en la propiedad de restitución.

Este pago puede – con ciertas limitaciones – ser convertido en una **Opción para Enganche** para asistirle en la compra de una propiedad de restitución (Vea la página 25 para una explicación completa.)

### **EJEMPLO DE LA COMPUTACIÓN DEL PAGO DE LA DIFERENCIA PARA RENTAR:**

Después de hacer un estudio completo de viviendas comparables, decentes, seguras y sanitarias que estén disponibles para rentar, Caltrans determina que una propiedad comparable de restitución podría ser rentada por \$325 al mes.

#### **Computación de Caltrans**

|   |               |
|---|---------------|
| Renta por una Propiedad Comparable de Restitución                       | \$ 325 al mes |
| MÁS: estimado de costos de servicios públicos                           | 100 al mes    |
| TOTAL Costo de renta por una Propiedad Comparable de Restitución        | \$ 425 al mes |
| Renta por su Propiedad Actual   | \$ 300 al mes |
| MÁS: costos de servicios públicos                                       | 90 al mes     |
| TOTAL Costo para pagar la renta de su propiedad actual                  | \$ 390 al mes |
| Propiedad Comparable de Restitución incluyendo servicios públicos       | \$ 425 al mes |
| Costo para pagar la renta de su propiedad incluyendo servicios públicos | 390 al mes    |
| Diferencia  | \$ 35 al mes  |

Multiplicado por 42 meses = \$1,470 Diferencia para Rentar

### Ejemplo A:

|  |               |
|--|---------------|
| Renta para una Propiedad de Restitución, incluyendo los costos estimados de servicios públicos | \$ 525 al mes |
| Propiedad Comparable de Restitución incluyendo servicios públicos                              | \$ 425 al mes |
| Costos de pago de la renta de su propiedad incluyendo servicios públicos                       | \$ 390 al mes |

Ya que \$425 es menos que \$525, la diferencia para rentar está basada en la diferencia entre \$390 y \$425.

Diferencia para Rentar ( $\$35 \times 42 \text{ meses} = \$1,470$ )

En este caso usted gasta “al menos” la cantidad de la Propiedad de Restitución Comparable en la propiedad de restitución y así recibirá la cantidad total.

### Ejemplo B:

|   |               |
|---|---------------|
| Renta por una Propiedad de Restitución, incluyendo los costos estimados de servicios públicos | \$ 400 al mes |
| Propiedad Comparable de Restitución incluyendo servicios públicos                             | \$ 425 al mes |
| Costos de pago de la renta de su propiedad incluyendo servicios públicos                      | \$ 390 al mes |

Ya que \$400 es menos que \$525, la diferencia para rentar está basada en la diferencia entre \$400 y \$390.

Diferencia para Rentar ( $\$10 \times 42 \text{ meses} = \$420$ )

En este caso usted va a gastar “menos que” la cantidad de Propiedad de Restitución Comparable en la restitución de la vivienda y usted no recibirá la cantidad total.

**PARA QUE UN “DUENO OCUPANTE DE 90 DÍAS” RECIBA LA CANTIDAD TOTAL DE PAGO PARA SU VIVIENDA DE RESTITUCION** (Diferencia para Rentar), **usted debe de:**

A) Rentar y ocupar una vivienda de restitución DS&S dentro de un año después de la última fecha de:

(1) La fecha en que usted recibió la primera notificación de una casa de restitución disponible, **O**

(2) El día en que usted se mudó de la propiedad adquirida por Caltrans.

**Y**

B) Gastar al menos la cantidad de la “Propiedad Comparable de Restitución” de Caltrans para rentar una vivienda de restitución.

**Y**

C) Reportar un reclamo para pagos de reubicación dentro de los 18 meses de la fecha más tarde:

(1) La fecha en que usted se mudó de la propiedad adquirida por Caltrans, **O**

(2) La fecha en que Caltrans le pagó los costos de adquisición de su propiedad actual (usualmente al cierre de escritura de la adquisición del Estado.)

Usted no será elegible para recibir ningún pago de reubicación hasta que haya hecho la primera oferta escrita para comprar la propiedad. Además, usted recibirá al menos una noticia por escrito 90 días antes de tener que mudarse.



## OPCIÓN PARA ENGANCHE

El pago de Diferencia para Rentar puede – con ciertas limitaciones – ser convertido en una **Opción para Enganche** para asistirle en la compra de una propiedad de restitución. La Opción para Enganche es una conversión directa del pago de la diferencia para rentar.

Si la diferencia para rentar es calculada entre \$0 y \$5,250, su Opción Para Enganche será de \$5,250 la cual puede ser usada para la compra de una vivienda de restitución decente, segura y sanitaria.

Si la diferencia para rentar es más de \$5,250 usted podrá convertir la cantidad completa de diferencia para rentar a una Opción Para Enganche.

La Opción Para Enganche debe de ser usada para el enganche requerido, la cual usualmente es un porcentaje del precio total de compra, más cualquier gasto incidental elegible (vea la página 14, “Gastos Incidentales para Dueños Ocupantes de 180 días”) relacionado con la compra de la propiedad. Usted debe trabajar junto con su Agente de Reubicación para asegurarse de que puede utilizar la cantidad total de su Opción Para Enganche en su compra.

Si alguna porción de la diferencia para rentar fue usada antes de su decisión de convertirla a una Opción Para Enganche, los pagos avanzados serán deducidos de los beneficios completos.

## **CASA DEL ÚLTIMO RECURSO**

En la mayoría de los proyectos de Caltrans, existe una cantidad adecuada de viviendas de venta y alquiler, y los beneficios serán suficientes para que usted pueda reubicarse a una vivienda comparable. Sin embargo, en ciertas localidades pueden haber proyectos donde el número de viviendas disponibles no son suficientes para proveer viviendas a todas las personas desplazadas. En estos casos, Caltrans utiliza un método llamado Casa del Último Recurso. La Casa del Último Recurso permite a Caltrans construir, rehabilitar, o modificar viviendas para cumplir con las necesidades de las personas desplazadas por un proyecto. Caltrans puede también pagar arriba de los límites legales de \$5,250 y \$22,500 para hacer posible viviendas con precios razonables.

### **Asistencia de Consulta Para Reubicación**

A cualquier individuo, familia, negocio u operación agrícola desplazada por Caltrans deberá ofrecérsele servicios de asistencia con el propósito de localizar una propiedad de restitución. Los servicios de reubicación son proveídos por empleados calificados de Caltrans. Es la meta de ellos y el deseo de estos empleados de servirle y asistirle de cualquier manera posible para ayudarle a reubicarse exitosamente.

Un Agente de Reubicación de Caltrans se pondrá en contacto con usted personalmente. Los servicios de reubicación y pagos se le explicarán de acuerdo con su elegibilidad. Durante la entrevista inicial, sus necesidades de vivienda y deseos se determinarán así como sus necesidades de asistencia. No se le puede pedir que se mude a menos que una vivienda comparable de restitución le sea disponible.

Usted puede esperar recibir los siguientes servicios, consejos y asistencia de su Agente de Reubicación quien le:

- Explicará los beneficios de reubicación y los requisitos de elegibilidad.
- Proveerá por escrito la cantidad de pago por su vivienda de restitución.
- Asegurará la disposición de una propiedad comparable antes de que se mude.
- Inspeccionará las posibles unidades residenciales de restitución para el cumplimiento de DS&S.

- Proveerá información y aconsejará como puede obtener ayuda para minimizar las adversidades en ajustarse a su nueva localidad.
- Ayudará en completar los documentos de préstamos, aplicaciones de rentas o las Formas de Reclamo para Reubicación.

Y proveerle información de:

- Seguro de Depósitos
- Taza de intereses y términos
- Pagos típicos de enganches
- Requisitos de préstamos de la Administración de Veteranos (VA) y la Administración de Vivienda Federal (FHA)
- Impuestos sobre bienes raíces
- Literatura de educación en viviendas para el consumidor

Si usted lo desea, el Agente de Reubicación le dará una lista actual de otras viviendas de restitución disponibles.

Se proveerá transportación para inspeccionar viviendas disponibles, especialmente si usted es mayor de edad o con impedimento físico. Aunque usted puede utilizar los servicios de un agente de bienes raíces, Caltrans no lo podrá referir.

Su Agente de Reubicación está familiarizado con los servicios proveídos por otras agencias de su comunidad y le proveerá información de otros programas de viviendas federales, estatales y locales que ofrecen programas de asistencia para personas desplazadas. Si usted tiene algún problema especial, su Agente de Reubicación hará su mejor esfuerzo para asegurarle los servicios de esas agencias con personal capacitado y con experiencia que le ayudarán.

Si el proyecto de transportación requiere un número considerable de personas que sean reubicados, Caltrans establecerá una Oficina Temporal de Reubicación en, o cerca del proyecto. Las oficinas de proyectos de reubicación deberán de abrirse durante horas convenientes y en horas tempranas de la noche, si es necesario.

Además de estos servicios, Caltrans es requerido que coordine las actividades de otras agencias que causen desplazamientos para asegurar que todas esas personas desplazadas reciban beneficios de reubicación equitativos y consistentes.

Recuerde – SU AGENTE DE REUBICACIÓN está para aconsejarle y asistirle. No vacile en hacer preguntas, y asegúrese de que entiende completamente sus derechos y beneficios de reubicación disponibles.

# SUS DERECHOS COMO UNA PERSONA DESPLAZADA

Todas las personas elegibles como personas desplazadas tienen la libertad de escoger dentro de la selección de viviendas de restitución, y Caltrans no requerirá a ninguna persona que sea desplazada que acepte una vivienda de restitución proveída por Caltrans. Si usted decide no aceptar la vivienda de restitución ofrecida por Caltrans, usted puede elegir una vivienda de restitución de su propia selección, mientras que cumple con los requisitos de DS&S. Caltrans no pagará más que los beneficios calculados por una vivienda de restitución.

Lo más importante que usted debe de recordar es que la vivienda de restitución que usted seleccione debe de llenar los requisitos básicos de “decente, segura y sanitaria”. No ejecute los documentos de compra o el contrato de renta hasta que un representante de Caltrans haya inspeccionado y certificado por escrito que la vivienda que usted se propone ocupar cumple con los requisitos básicos. **NO ARRIESGUE** su derecho de recibir los pagos de vivienda de restitución por mudarse a una vivienda que no sea “decente, segura y sanitaria.”

Es importante recordar que sus beneficios de reubicación no van a tener ningún efecto adverso en su:

- Elegibilidad para Seguro Social
- Elegibilidad para Asistencia Social
- Impuestos sobre ingresos

Además, el Título VIII de los Derechos Civiles, Ley de 1968 y luego otras leyes y enmiendas hacen discriminatoria la práctica de compra y renta de unidades de vivienda si es basada ilegalmente en la raza, color, religión, sexo u origen nacional.

Cuando sea posible, a personas de minorías se les debe de dar oportunidades razonables para reubicarse a viviendas de restitución que sean decentes, seguras y sanitarias, no localizadas en áreas de concentración de minorías, y que estén dentro de sus recursos económicos. Esta política, sin embargo, no requiere que Caltrans provea a una persona pagos más grandes de lo que sean necesarios para permitir que la persona sea reubicada a una vivienda de restitución comparable.

La política No-Desdiscriminatoria de Caltrans asegura que todos los servicios y/o los beneficios deben de ser administrados al público en general sin importar la raza, color, origen nacional, o sexo en cumplimiento con el Título VI de la Ley de Derechos Civiles de 1964 (42 USC 2000 d. et seq.)

Usted siempre tendrá el Derecho de Apelar cualquier decisión hecha por Caltrans relacionada a los beneficios de reubicación y elegibilidad.

Su Derecho de Apelar está garantizado en la “Ley Uniforme” la cual establece que una persona puede apelar al jefe de la agencia responsable, si ella cree que la agencia ha fallado en determinar correctamente su elegibilidad, o la cifra del pago autorizado por la Ley.

Si usted indica su disatisfacción, ya sea verbalmente o por escrito, Caltrans le asistirá en hacer su demanda de apelación y le explicará el procedimiento que debe de seguir. Usted tiene derecho de ser representado por un asesor legal u otro representante en conexión con su apelación (pero solamente por su propia cuenta.)

Caltrans considerará toda justificación y materia pertinente que usted entregue u otra información disponible, necesaria para asegurar una audiencia equitativa. Caltrans le proveerá una determinación por escrito del resultado de su apelación, con una explicación sobre la base de la decisión. Si usted aún no está satisfecho con la decisión otorgada, Caltrans le aconsejará que usted puede pedir una audiencia judicial.

#### **Noticiero de la Ley para Americanos con Incapacidades Físicas (ADA):**

**Para personas con incapacidades físicas, este documento es disponible en formatos alternativos. Para Información llame al número (916) 654-5413 Voz, CRS: 1-800-735-2929, o escriba a Derecho de Vía, MS 37, 1120 N Street, Sacramento, CA 95814.**

# NOTAS





## **Appendix E** Farmlands Documentation

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## U.S. Department of Agriculture

## FARMLAND CONVERSION IMPACT RATING

|   |   |   |                             |   |                              |
|---|---|---|-----------------------------|---|------------------------------|
| <b>PART I (To be completed by Federal Agency)</b>   |   | Date Of Land Evaluation Request <u>12/8/08</u>                        |                             |   |                              |
| Name Of Project<br><u>4-501-80, I-80, I-680 SR 12 Interchange Project</u>   |   | Federal Agency Involved <u>Federal Highway Administration</u>         |                             |   |                              |
| Proposed Land Use<br><u>New Highway Right of Way</u>  |   | County And State <u>Salerno County, California</u>                    |                             |   |                              |
| <b>PART II (To be completed by NRCS)</b>  |   | Date Request Received By NRCS <u>12/8/08</u>                          |                             |   |                              |
| Does the site contain prime, unique, statewide or local important farmland?<br>(If no, the FPPA does not apply - do not complete additional parts of this form) |   | Yes <input checked="" type="checkbox"/>                               | No <input type="checkbox"/> | Acres Irrigated <u>17,000</u>                                       | Average Farm Size <u>341</u> |
| Major Crop(s)<br><u>PERCUL, CECUARD, ROW CROP</u>   | Farmable Land In Govt. Jurisdiction<br>Acres <u>233,000</u> % <u>40</u> | Amount Of Farmland As Defined in FPPA<br>Acres <u>NOT AVAILABLE</u> % |                             | Date Land Evaluation Returned By NRCS<br><u>1/2/09</u>              |                              |
| Name Of Land Evaluation System Used<br><u>CA STATE</u>  | Name Of Local Site Assessment System<br><u>NONE</u>                     |   |                             |   |                              |
| <b>PART III (To be completed by Federal Agency)</b>   |   | Alternative Site Rating   |                             |   |                              |
|   |   | Site A  | Site B                      | Site C  | Site D                       |
| A. Total Acres To Be Converted Directly   |   | <u>136.9</u>  | <u>118.8</u>                |   |                              |
| B. Total Acres To Be Converted Indirectly   |   | <u>0</u>  | <u>0</u>                    |   |                              |
| C. Total Acres In Site  |   | <u>0.0 136.9</u>  | <u>0.0 118.8</u>            | <u>0.0</u>  | <u>0.0</u>                   |
| <b>PART IV (To be completed by NRCS) Land Evaluation Information</b>  |   |   |                             |   |                              |
| A. Total Acres Prime And Unique Farmland  |   | <u>101.4</u>  | <u>96.9</u>                 |   |                              |
| B. Total Acres Statewide And Local Important Farmland   |   | <u>30.8</u>   | <u>15.7</u>                 |   |                              |
| C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted   |   | <u>0.00057</u>  | <u>0.00061</u>              |   |                              |
| D. Percentage Of Farmland In Govt. Jurisdiction With State Or Higher Relative Value   |   | <u>9</u>  |                             |   |                              |
| <b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>   |   |   |                             |   |                              |
| Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)   |   | <u>0 63.3</u>   | <u>0 66.7</u>               | <u>0</u>  | <u>0</u>                     |
| <b>PART VI (To be completed by Federal Agency)</b>  |   |   |                             |   |                              |
| Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))   |   | Maximum Points  |                             |   |                              |
| 1. Area In Nonurban Use   |   | <u>6</u>  | <u>6</u>                    |   |                              |
| 2. Perimeter In Nonurban Use  |   | <u>4</u>  | <u>4</u>                    |   |                              |
| 3. Percent Of Site Being Farmed   |   | <u>2</u>  | <u>2</u>                    |   |                              |
| 4. Protection Provided By State And Local Government  |   | <u>20</u>   | <u>20</u>                   |   |                              |
| 5. Distance From Urban Buildup Area   |   | <u>N/A</u>  | <u>N/A</u>                  |   |                              |
| 6. Distance To Urban Support Services   |   | <u>N/A</u>  | <u>N/A</u>                  |   |                              |
| 7. Size Of Present Farm Unit Compared To Average  |   | <u>0</u>  | <u>0</u>                    |   |                              |
| 8. Creation Of Nonfarmable Farmland   |   | <u>10</u>   | <u>10</u>                   |   |                              |
| 9. Availability Of Farm Support Services  |   | <u>5</u>  | <u>5</u>                    |   |                              |
| 10. On-Farm Investments   |   | <u>18</u>   | <u>18</u>                   |   |                              |
| 11. Effects Of Conversion On Farm Support Services  |   | <u>1</u>  | <u>1</u>                    |   |                              |
| 12. Compatibility With Existing Agricultural Use  |   | <u>5</u>  | <u>5</u>                    |   |                              |
| TOTAL SITE ASSESSMENT POINTS  |   | <u>160</u>  | <u>171</u>                  | <u>0</u>  | <u>0</u>                     |
| <b>PART VII (To be completed by Federal Agency)</b>   |   |   |                             |   |                              |
| Relative Value Of Farmland (From Part V)  |   | <u>100</u>  | <u>0 63.3</u>               | <u>0</u>  | <u>0</u>                     |
| Total Site Assessment (From Part VI above or a local site assessment)   |   | <u>160</u>  | <u>171</u>                  | <u>0</u>  | <u>0</u>                     |
| TOTAL POINTS (Total of above 2 lines)   |   | <u>260</u>  | <u>0 134.3</u>              | <u>137.7</u>  | <u>0</u>                     |
| Site Selected:  |   | Date Of Selection   |                             | Was A Local Site Assessment Used?                                   |                              |
|   |   |   |                             | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |                              |
| Reason For Selection:   |   |   |                             |   |                              |

(See instructions on reverse side)

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Form AD-1006 (10-83)





**DEPARTMENT OF TRANSPORTATION**

P. O. BOX 23660  
 OAKLAND, CA 94623-0660  
 PHONE (510) 286-5231  
 FAX (510) 286-5600  
 TTY 711



*Flex your power!  
 Be energy efficient!*

May 20, 2009

Mr. Dennis J. O'Bryant, Program Manager  
 California Department of Conservation  
 c/o Division of Land Resource Management  
 801 K Street, MS 18-01  
 Sacramento, CA 95814

Subject: Notification of the I-80/I-680/SR 12 Interchange Project

Dear Mr. O'Bryant:

In accordance with Government Code Section 51291(b), this letter serves as notification of the possible acquisition of a portion of a conservation easement for the proposed I-80/I-680/SR 12 Interchange Project in Solano County. The purpose and need of this project is to reduce existing and future traffic congestion by increasing capacity of the facility from two lanes to four lanes and by either constructing ramps on SR 12E to serve Beck Avenue and Pennsylvania Avenue, or by re-aligning I-680 to the west to connect with the I-80/SR 12W interchange. The western boundary of the proposed project is on Jameson Canyon Road, just west of Red Top Road in the city of Fairfield. The eastern boundary exists to the east of Pennsylvania Avenue in Suisun City. This boundary reaches the railroad track used for Amtrak in Suisun City. The enclosed exhibits, Attachment A and Attachment B, show the project location and project area respectively. For a detailed project description please refer to Attachment C of this letter.

There are two alternatives being considered, Alternative B and Alternative C (see Attachment D and Attachment E). Both alternatives would require the acquisition of land from 4 parcels currently under the Williamson Act contracts (Table 1, Attachment F). These four parcels amount to 406 acres. Caltrans proposes to acquire 96.8 acres from these parcels to be converted into permanent transportation use.

**Table 1: Williamson Act Contracts in the Project Area**

| Contract Number | APN          | Total Acres in Contract | Acres Removed from Contract |
|-----------------|--------------|-------------------------|-----------------------------|
| 739             | 0027-251-330 | 78.9                    | 61.9                        |
|                 | 0027-271-060 |                         | 18.0                        |
| 97              | 0148-260-010 | 268.8                   | 9                           |
|                 | 0148-270-010 |                         | 0.2                         |
| 1100            | 0148-270-340 | 42.2                    |                             |
| 2               | 0150-270-050 | 16.1                    | 7.7                         |
| Total           |              | 406                     | 96.8                        |

Source: Solano Land Trust, 2007.

*"Caltrans improves mobility across California"*

Mr. Dennis J. O'Bryant  
20 May 2009  
Page 2

Although design refinements may further reduce the project footprint, impacts to Williamson Act contract lands cannot be completely avoided because of the scale of needed improvements on the I-80/I-680/SR 12 Interchange Project. Based on this consideration, Caltrans has determined that use of other non-contract land is not reasonably foreseeable for the proposed public improvement.

Due to the small size of the proposed acquisitions in each alternative, production on the Williamson Act parcels would not be significantly affected. Furthermore, affected areas are generally on the periphery of the agricultural properties; therefore, no significant acreage of farmland would become non-productive because of interference with land patterns. The project design is taking steps to accommodate the need of landowners for ingress and egress to their properties, both during construction and long-term.

Caltrans requests you review of this notification and your comments. If you have questions or comments on this notification, please contact Howell Chan of my staff at (510) 286-5623, [howell\\_chan@dot.ca.gov](mailto:howell_chan@dot.ca.gov), or me at (510) 286-5231, [Melanie\\_brent@dot.ca.gov](mailto:Melanie_brent@dot.ca.gov).

Sincerely,



MELANIE BRENT  
District Office Chief  
Office of Environmental Analysis

Enclosures:

- Attachment A: Project Location Map
- Attachment B: Project Area Map
- Attachment C: Project Description
- Attachment D: Alternative B Map
- Attachment E: Alternative C Map
- Attachment F: Williamson Act Contract Map






# DEPARTMENT OF CONSERVATION

## DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEBSITE [conservation.ca.gov](http://conservation.ca.gov)

TO: Melanie Brent, District Office Chief  
Department of Transportation  
Office of Environmental Analysis

FROM: Dan Otis, Program Manager   
Williamson Act Program  
Division of Land Resource Protection  
Department of Conservation

DATE: July 8, 2009

SUBJECT: Notification of the I-80/I-680/State Route (SR) Interchange Project

Thank you for your letter notifying the Department of Conservation (Department) of the Department of Transportation's (Caltrans) possible acquisition of portions of six parcels of land restricted by a Williamson Act contract for the construction of a state highway interchange project to reduce existing and future traffic congestion in Solano County. This project will involve the following contracted parcels:

### Williamson Act Contracts in the Project Area

| Contract Number | Parcel Number | Total Acres | Acres to be Removed from Contract |
|-----------------|---------------|-------------|-----------------------------------|
| 739             | 0027-251-330  | 78.9        | 61.9                              |
| 739             | 0027-271-060  |             | 18.0                              |
| 97              | 0148-260-010  | 268.8       | 9                                 |
| 97              | 0148-270-010  |             | 0.2                               |
| 1100            | 0148-270-340  | 42.2        |                                   |
| 2               | 0150-270-050  | 16.1        | 7.7                               |
| <b>TOTAL</b>    |               | <b>406</b>  | <b>96.8</b>                       |

### Project Location

The project area is divided into three segments: western, central, and eastern. The western segment begins just west of the I-80/Red Top Road interchange and ends at the I-80/ Suisun Valley Road interchange. The central segment begins at the I-80 Suisun Valley Road interchange and ends at the SR12E/Chadbourne Road interchange. The eastern segment begins at the SR12E Chadbourne Road interchange and ends at the Fairfield Overhead where SR12E crosses over the Union Pacific Railroad (UPRR) tracks just west of Suisun City. The western boundary of the proposed project is on Jameson Canyon Road, just west of Red Top Road in the City of Fairfield. The eastern boundary exists to the east of Pennsylvania Avenue in Suisun City. This boundary reaches the railroad track used for Amtrak in Suisun City.

Project Description

Caltrans proposes to acquire 96.8 acres from several parcels to be converted into permanent transportation use. The project would construct an interchange to reduce existing and future traffic congestion by constructing ramps on SR 12E to serve Beck Avenue and Pennsylvania Avenue, or by re-aligning I-680 to the west to connect with I-80/SR 12W interchange. Caltrans is considering two full-build alternatives (Alternatives B and C) for the construction of the project. Both projects require the acquisition of land from four parcels.

The Williamson Act requires that public agencies shall not locate public improvements in agricultural preserves unless the following specific findings can be made (Government Code § 51292):

- *"The location is not based primarily on a consideration of the lower cost of acquiring land in an agricultural preserve (§51292(a))."*
- *"If the land is agricultural land covered under a contract pursuant to this chapter for any public improvement, that there is no other land within or outside the preserve on which it is reasonably feasible to locate the public improvement (§51292(b))."*

One of the limited exceptions to required findings is for "...All state highways on routes as described in Sections 301 to 622, inclusive, of the Streets and Highways Code..." (Gov. Code §51293, subd. (3)(g)). The information in your notice appears to indicate that this project qualifies for this exception. Therefore, the Department has determined that the findings required by Government Code §51292 do not apply in this case.

Please be advised that, pursuant to Government Code §51291(d), the Department must be notified of any proposed, significant changes to the project. The Department must also be notified when the property is actually acquired (Gov. Code §51291(c)). If Caltrans determines not to locate the proposed public improvement on the purchased subject property, before returning the land to private ownership, it must notify the Department. The land shall be reenrolled in a new contract or encumbered by an enforceable restriction at least as restrictive as that provided by the Williamson Act (Gov. Code §51295). The local jurisdiction administering the preserve should also be notified, when notice is provided to the State. If you have any questions, please contact Jacquelyn Ramsey, Environmental Planner, at (916) 323-2379.

cc: The Honorable Skip Thomson  
Solano County Assessor  
600 Texas Street  
Fairfield, CA 94533-6386

Solano County Board of Supervisors  
Old County Courthouse  
580 Texas Street  
Fairfield, CA 94533



## Appendix F Threatened and Endangered Species List

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**U.S. Fish & Wildlife Service**  
**Sacramento Fish & Wildlife Office**  
**Federal Endangered and Threatened Species that Occur in**  
**or may be Affected by Projects in the Counties and/or**  
**U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 120810053704

Database Last Updated: September 18, 2011

---

Quad Lists

Listed Species

Invertebrates

*Branchinecta conservatio*

Conservancy fairy shrimp (E)

Critical habitat, Conservancy fairy shrimp (X)

*Branchinecta lynchi*

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

*Desmocerus californicus dimorphus*

valley elderberry longhorn beetle (T)

*Elaphrus viridis*

Critical habitat, delta green ground beetle (X)

delta green ground beetle (T)

*Lepidurus packardii*

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

*Speyeria callippe callippe*

callippe silverspot butterfly (E)

*Speyeria zerene myrtleae*

Myrtle's silverspot butterfly (E)

*Syncaris pacifica*

California freshwater shrimp (E)

Fish

*Acipenser medirostris*

green sturgeon (T) (NMFS)

*Eucyclogobius newberryi*

tidewater goby (E)

*Hypomesus transpacificus*

Critical habitat, delta smelt (X)

delta smelt (T)

*Oncorhynchus kisutch*

coho salmon - central CA coast (E) (NMFS)

*Oncorhynchus mykiss*

Central California Coastal steelhead (T) (NMFS)

Central Valley steelhead (T) (NMFS)  
Critical habitat, Central California coastal steelhead (X) (NMFS)  
Critical habitat, Central Valley steelhead (X) (NMFS)

*Oncorhynchus tshawytscha*

Central Valley spring-run chinook salmon (T) (NMFS)  
Critical Habitat, Central Valley spring-run chinook (X) (NMFS)  
Critical habitat, winter-run chinook salmon (X) (NMFS)  
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

*Ambystoma californiense*

California tiger salamander, central population (T)  
Critical habitat, CA tiger salamander, central population (X)

*Rana draytonii*

California red-legged frog (T)  
Critical habitat, California red-legged frog (X)

Reptiles

*Masticophis lateralis euryxanthus*

Alameda whipsnake [=striped racer] (T)  
Critical habitat, Alameda whipsnake (X)

*Thamnophis gigas*

giant garter snake (T)

Birds

*Charadrius alexandrinus nivosus*

western snowy plover (T)

*Pelecanus occidentalis californicus*

California brown pelican (E)

*Rallus longirostris obsoletus*

California clapper rail (E)

*Sternula antillarum* (=Sterna, =albifrons) browni

California least tern (E)

*Strix occidentalis caurina*

northern spotted owl (T)

Mammals

*Reithrodontomys raviventris*

salt marsh harvest mouse (E)

Plants

*Blennosperma bakeri*

Baker's stickyseed [=Sonoma Sunshine] (E)

*Castilleja affinis* ssp. neglecta

Tiburon paintbrush (E)

*Cirsium hydrophilum* var. hydrophilum

Suisun thistle (E)

*Cordylanthus mollis* ssp. mollis

soft bird's-beak (E)

*Holocarpha macradenia*

Santa Cruz tarplant (T)

*Lasthenia conjugens*

Contra Costa goldfields (E)

Critical habitat, Contra Costa goldfields (X)

*Limnanthes vinculans*

Sebastopol meadowfoam (E)

*Neostapfia colusana*

Colusa grass (T)

*Oenothera deltooides ssp. howellii*

Antioch Dunes evening-primrose (E)

*Orcuttia inaequalis*

San Joaquin Valley Orcutt grass (T)

*Sidalcea keckii*

Keck's checker-mallow (=checkerbloom) (E)

*Trifolium amoenum*

showy Indian clover (E)

*Tuctoria mucronata*

Solano grass (=Crampton's tuctoria) (E)

## Proposed Species

### Plants

*Cirsium hydrophilum var. hydrophilum*

Critical habitat, Suisun thistle (PX)

*Cordylanthus mollis ssp. mollis*

Critical habitat, soft bird's-beak (PX)

## Quads Containing Listed, Proposed or Candidate Species:

BIRDS LANDING (481A)

DENVERTON (481B)

HONKER BAY (481C)

FAIRFIELD SOUTH (482A)

CORDELIA (482B)

BENICIA (482C)

VINE HILL (482D)

CUTTINGS WHARF (483A)

SEARS POINT (483B)

MARE ISLAND (483D)

ALLENDALE (498B)

ELMIRA (498C)

DOZIER (498D)

MT. VACA (499A)

MT. GEORGE (499C)

FAIRFIELD NORTH (499D)

NAPA (500D)

---

## County Lists

No county species lists requested.

## Key:

(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.

*Critical Habitat* - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

## Important Information About Your Species List

### How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

### Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

### Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

### Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue,

hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal [consultation](#) with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

## Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

## Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

## Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

## Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6520.

## Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 08, 2012.





Quad is (Birds Landing (3812127) or Denverton (3812128) or Honker Bay (3812118) or Fairfield South (3812221) or Cordelia (3812222) or Benicia (3812212) or Vine Hill (3812211) or Cuttings Wharf (3812223) or Sears Point (3812224) or Mare Island (3812213) or Allendale (3812148) or Elmira (3812138) or Dozier (3812137) or Mt. Vaca (3812241) or Mt. George (3812232) or Fairfield North (3812231) or Napa (3812233))

### CNDDDB Element Query Results

| ScientificName          | CommonName                            | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus   | Habitat   |
|-------------------------|---------------------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|---|---|
| Accipiter cooperii      | Cooper's hawk                         | ABNKC12040  | 102      | G5         | S3        | None                 | None               |          | DFG_WL-Watch List   IUCN_LC-Least Concern   | Cismontane woodland   Riparian forest   Riparian woodland   Upper montane coniferous forest   |
| Adela oplerella         | Opler's longhorn moth                 | IILEE0G040  | 8        | G2G3       | S2S3      | None                 | None               |          |   | Ultramafic   Valley and foothill grassland  |
| Agelaius tricolor       | tricolored blackbird                  | ABPBXB0020  | 428      | G2G3       | S2        | None                 | None               |          | ABC_WLBCC -Watch List of Birds of Conservation Concern   BLM_S-Sensitive   DFG_SSC-Species of Special Concern   IUCN_EN-Endangered   USFWS_BCC -Birds of Conservation Concern | Freshwater marsh   Marsh and swamp   Swamp   Wetland  |
| Ambystoma californiense | California tiger salamander           | AAAAA01180  | 1057     | G2G3       | S2S3      | Threatened           | Threatened         |          | DFG_SSC-Species of Special Concern   IUCN_VU-Vulnerable   | Cismontane woodland   Meadow and seep   Riparian woodland   Valley and foothill grassland   Vernal pool   Wetland   |
| Andrena blennospermatis | Blennosperma vernal pool andrenid bee | IIHYM35030  | 15       | G2         | S2        | None                 | None               |          |   | Vernal pool   |
| Antrozous pallidus      | pallid bat                            | AMACC10010  | 402      | G5         | S3        | None                 | None               |          | BLM_S-Sensitive   DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive   WBWG_H-High Priority  | Chaparral   Coastal scrub   Desert wash   Great Basin grassland   Great Basin scrub   Mojavean desert scrub   Riparian woodland   Sonoran desert scrub   Upper montane coniferous forest   Valley and foothill grassland                        |
| Aquila chrysaetos       | golden eagle                          | ABNKC22010  | 141      | G5         | S3        | None                 | None               |          | BLM_S-Sensitive   CDF_S-Sensitive   DFG_FP-Fully Protected   DFG_WL-Watch List   IUCN_LC-Least Concern   USFWS_BCC -Birds of Conservation Concern                             | Broadleaved upland forest   Cismontane woodland   Coastal prairie   Great Basin grassland   Great Basin scrub   Lower montane coniferous forest   Pinon and juniper woodlands   Upper montane coniferous forest   Valley and foothill grassland |
| Ardea alba              | great egret                           | ABNGA04040  | 35       | G5         | S4        | None                 | None               |          | CDF_S-Sensitive   IUCN_LC-Least Concern   | Brackish marsh   Estuary   Freshwater marsh   Marsh and swamp   Riparian forest   Wetland   |

| ScientificName                    | CommonName               | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus   | Habitat  |
|-----------------------------------|--------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|---|--|
| Ardea herodias                    | great blue heron         | ABNGA04010  | 132      | G5         | S4        | None                 | None               |          | CDF_S-Sensitive   IUCN_LC-Least Concern   | Brackish marsh   Estuary   Freshwater marsh   Marsh and swamp   Riparian forest   Wetland  |
| Asio flammeus                     | short-eared owl          | ABNSB13040  | 9        | G5         | S3        | None                 | None               |          | ABC_WLBCC -Watch List of Birds of Conservation Concern   DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern     | Great Basin grassland   Marsh and swamp   Meadow and seep   Valley and foothill grassland   Wetland  |
| Astragalus tener var. ferrisiae   | Ferris' milk-vetch       | PDFAB0F8R3  | 16       | G1T1       | S1        | None                 | None               | 1B.1     | BLM_S-Sensitive   | Meadow and seep   Valley and foothill grassland   Wetland  |
| Astragalus tener var. tener       | alkali milk-vetch        | PDFAB0F8R1  | 65       | G2T2       | S2        | None                 | None               | 1B.2     |   | Alkali playa   Valley and foothill grassland   Vernal pool   Wetland   |
| Athene cunicularia                | burrowing owl            | ABNSB10010  | 1808     | G4         | S2        | None                 | None               |          | BLM_S-Sensitive   DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFWS_BCC -Birds of Conservation Concern | Coastal prairie   Coastal scrub   Great Basin grassland   Great Basin scrub   Mojavean desert scrub   Sonoran desert scrub   Valley and foothill grassland |
| Atriplex cordulata var. cordulata | heartscale               | PDCHE040B0  | 64       | G3T2       | S2.2?     | None                 | None               | 1B.2     | BLM_S-Sensitive   | Chenopod scrub   Meadow and seep   Valley and foothill grassland   |
| Atriplex depressa                 | brittlescale             | PDCHE042L0  | 59       | G2Q        | S2.2      | None                 | None               | 1B.2     |   | Alkali playa   Chenopod scrub   Meadow and seep   Valley and foothill grassland   Vernal pool   Wetland  |
| Atriplex joaquinana               | San Joaquin spearscale   | PDCHE041F3  | 107      | G2         | S2        | None                 | None               | 1B.2     | BLM_S-Sensitive   | Chenopod scrub   Meadow and seep   Valley and foothill grassland   |
| Atriplex persistens               | vernal pool smallscale   | PDCHE042P0  | 39       | G2         | S2.2      | None                 | None               | 1B.2     |   | Vernal pool   Wetland  |
| Balsamorhiza macrolepis           | big-scale balsamroot     | PDAST11061  | 38       | G2         | S2        | None                 | None               | 1B.2     | BLM_S-Sensitive   USFS_S-Sensitive  | Cismontane woodland   Ultramafic   Valley and foothill grassland   |
| Blennosperma bakeri               | Sonoma sunshine          | PDAST1A010  | 27       | G1         | S1        | Endangered           | Endangered         | 1B.1     |   | Valley and foothill grassland   Vernal pool   Wetland  |
| Blepharizonia plumosa             | big tarplant             | PDAST1C011  | 50       | G1         | S1        | None                 | None               | 1B.1     |   | Valley and foothill grassland  |
| Branchinecta conservatio          | Conservancy fairy shrimp | ICBRA03010  | 34       | G1         | S1        | Endangered           | None               |          | IUCN_EN-Endangered  | Valley and foothill grassland   Vernal pool   Wetland  |
| Branchinecta lynchi               | vernal pool fairy shrimp | ICBRA03030  | 608      | G3         | S2S3      | Threatened           | None               |          | IUCN_VU-Vulnerable  | Valley and foothill grassland   Vernal pool   Wetland  |
| Branchinecta mesoallensis         | midvalley fairy shrimp   | ICBRA03150  | 99       | G2         | S2        | None                 | None               |          |   | Vernal pool   Wetland  |
| Brodiaea leptandra                | narrow-anthered brodiaea | PMLIL0C022  | 29       | G2G3       | S2S3.2    | None                 | None               | 1B.2     |   | Broadleaved upland forest   Chaparral   Lower montane coniferous forest  |
| Buteo regalis                     | ferruginous hawk         | ABNKC19120  | 96       | G4         | S3S4      | None                 | None               |          | DFG_WL-Watch List   IUCN_LC-  | Great Basin grassland   Great Basin scrub  |

| ScientificName                    | CommonName               | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus  | Habitat  |
|-----------------------------------|--------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|--|--|
| Buteo swainsoni                   | Swainson's hawk          | ABNKC19070  | 1747     | G5         | S2        | None                 | Threatened         |          | Least Concern   USFWS_BCC -Birds of Conservation Concern<br>ABC_WLBCC -Watch List of Birds of Conservation Concern   BLM_S-Sensitive   IUCN_LC-Least Concern   USFS_S-Sensitive   USFWS_BCC -Birds of Conservation Concern | Pinon and juniper woodlands   Valley and foothill grassland<br>Great Basin grassland   Riparian forest   Riparian woodland   Valley and foothill grassland |
| Calasellus californicus           | An isopod                | ICMAL34010  | 3        | G2         | S2        | None                 | None               |          |  | Aquatic  |
| California macrophylla            | round-leaved filaree     | PDGER01070  | 155      | G2         | S2        | None                 | None               | 1B.1     | BLM_S-Sensitive  | Cismontane woodland   Valley and foothill grassland  |
| Calochortus pulchellus            | Mt. Diablo fairy-lantern | PMLIL0D160  | 40       | G2         | S2        | None                 | None               | 1B.2     |  | Chaparral   Cismontane woodland   Riparian woodland   Valley and foothill grassland  |
| Castilleja affinis ssp. neglecta  | Tiburon paintbrush       | PDSCR0D013  | 9        | G4G5T1     | S1        | Endangered           | Threatened         | 1B.2     |  | Ultramafic   Valley and foothill grassland   |
| Ceanothus purpureus               | holly-leaved ceanothus   | PDRHA04160  | 40       | G2         | S2        | None                 | None               | 1B.2     |  | Chaparral  |
| Centromadia parryi ssp. congdonii | Congdon's tarplant       | PDAST4R0P1  | 92       | G4T2       | S2        | None                 | None               | 1B.2     | BLM_S-Sensitive  | Valley and foothill grassland  |
| Centromadia parryi ssp. parryi    | pappose tarplant         | PDAST4R0P2  | 27       | G4T1       | S1        | None                 | None               | 1B.2     | BLM_S-Sensitive  | Coastal prairie   Marsh and swamp   Meadow and seep   Valley and foothill grassland  |
| Charadrius alexandrinus nivosus   | western snowy plover     | ABNNB03031  | 116      | G4T3       | S2        | Threatened           | None               |          | ABC_WLBCC -Watch List of Birds of Conservation Concern   DFG_SSC-Species of Special Concern   USFWS_BCC -Birds of Conservation Concern   | Great Basin standing waters   Sand shore   Wetland   |
| Charadrius montanus               | mountain plover          | ABNNB03100  | 88       | G2         | S2?       | Proposed Threatened  | None               |          | ABC_WLBCC -Watch List of Birds of Conservation Concern   BLM_S-Sensitive   DFG_SSC-Species of Special Concern   IUCN_NT-Near Threatened   USFWS_BCC -Birds of Conservation Concern   | Chenopod scrub   Valley and foothill grassland   |
| Chloropyron molle ssp. hispidum   | hispid bird's-beak       | PDSCR0J0D1  | 35       | G2T2       | S2.1      | None                 | None               | 1B.1     | BLM_S-Sensitive  | Alkali playa   Meadow and seep   Wetland   |
| Chloropyron molle ssp. molle      | soft bird's-beak         | PDSCR0J0D2  | 26       | G2T1       | S1        | Endangered           | Rare               | 1B.2     |  | Marsh and swamp   Salt marsh   Wetland   |
| Cicuta maculata var. bolanderi    | Bolander's water-hemlock | PDAP10M051  | 17       | G5T3T4     | S2        | None                 | None               | 2.1      |  | Marsh and swamp   Salt marsh   Wetland   |

| ScientificName                       | CommonName                          | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus  | Habitat  |
|--------------------------------------|-------------------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|--|--|
| Circus cyaneus                       | northern harrier                    | ABNKC11010  | 43       | G5         | S3        | None                 | None               |          | DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern                                   | Coastal scrub   Great Basin grassland   Marsh and swamp   Riparian scrub   Valley and foothill grassland   Wetland   |
| Cirsium hydrophilum var. hydrophilum | Suisun thistle                      | PDAST2E1G1  | 4        | G1T1       | S1        | Endangered           | None               | 1B.1     |  | Marsh and swamp   Salt marsh   Wetland   |
| Coastal and Valley Freshwater Marsh  | Coastal and Valley Freshwater Marsh | CTT52410CA  | 60       | G3         | S2.1      | None                 | None               |          |  | Marsh and swamp   Wetland  |
| Coastal Brackish Marsh               | Coastal Brackish Marsh              | CTT52200CA  | 30       | G2         | S2.1      | None                 | None               |          |  | Marsh and swamp   Wetland  |
| Danaus plexippus                     | monarch butterfly                   | IILEPP2010  | 334      | G5         | S3        | None                 | None               |          |  | Closed-cone coniferous forest  |
| Delphinium recurvatum                | recurved larkspur                   | PDRAN0B1J0  | 91       | G3         | S3        | None                 | None               | 1B.2     | BLM_S-Sensitive  | Chenopod scrub   Cismontane woodland   Valley and foothill grassland   |
| Desmocerus californicus dimorphus    | valley elderberry longhorn beetle   | IICOL48011  | 201      | G3T2       | S2        | Threatened           | None               |          |  | Riparian scrub   |
| Dirca occidentalis                   | western leatherwood                 | PDTHY03010  | 52       | G2G3       | S2S3      | None                 | None               | 1B.2     |  | Broadleaved upland forest   Chaparral   Cismontane woodland   Closed-cone coniferous forest   North coast coniferous forest   Riparian forest   Riparian woodland  |
| Downingia pusilla                    | dwarf downingia                     | PDCAM060C0  | 122      | G2         | S2        | None                 | None               | 2.2      |  | Valley and foothill grassland   Vernal pool   Wetland  |
| Dumontia oregonensis                 | hairy water flea                    | ICBRA23010  | 2        | G1G3       | S1        | None                 | None               |          |  | Vernal pool  |
| Elanus leucurus                      | white-tailed kite                   | ABNKC06010  | 157      | G5         | S3        | None                 | None               |          | BLM_S-Sensitive   DFG_FP-Fully Protected   IUCN_LC-Least Concern                             | Cismontane woodland   Marsh and swamp   Riparian woodland   Valley and foothill grassland   Wetland  |
| Elaphrus viridis                     | Delta green ground beetle           | IICOL36010  | 7        | G1         | S1        | Threatened           | None               |          | IUCN_CR-Critically Endangered  | Vernal pool   Wetland  |
| Emys marmorata                       | western pond turtle                 | ARAAD02030  | 1134     | G3G4       | S3        | None                 | None               |          | BLM_S-Sensitive   DFG_SSC-Species of Special Concern   IUCN_VU-Vulnerable   USFS_S-Sensitive | Aquatic   Artificial flowing waters   Klamath/North coast flowing waters   Klamath/North coast standing waters   Marsh and swamp   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters   South coast flowing waters   South coast standing waters   Wetland |
| Erigeron greenei                     | Greene's narrow-leaved daisy        | PDAST3M5G0  | 12       | G2         | S2        | None                 | None               | 1B.2     |  | Chaparral   Ultramafic   |
| Eriogonum truncatum                  | Mt. Diablo buckwheat                | PDPGN085Z0  | 6        | G1         | S1.1      | None                 | None               | 1B.1     |  | Chaparral   Coastal scrub   Valley and foothill grassland  |
| Erysimum capitatum var. angustatum   | Contra Costa wallflower             | PDBRA16052  | 4        | G5T1       | S1        | Endangered           | Endangered         | 1B.1     |  | Interior dunes   |

| ScientificName                         | CommonName                          | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus  | Habitat   |
|--|-------------------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|--|---|
| Falco peregrinus anatum                | American peregrine falcon           | ABNKD06071  | 33       | G4T3       | S2        | Delisted             | Delisted           |          | CDF_S-Sensitive   DFG_FP-Fully Protected   USFWS_BCC-Birds of Conservation Concern |   |
| Fritillaria liliacea                   | fragrant fritillary                 | PMLIL0V0C0  | 69       | G2         | S2        | None                 | None               | 1B.2     | USFS_S-Sensitive   | Coastal prairie   Coastal scrub   Ultramafic   Valley and foothill grassland                                |
| Fritillaria pluriflora                 | adobe-lily                          | PMLIL0V0F0  | 105      | G3         | S3        | None                 | None               | 1B.2     | BLM_S-Sensitive  | Chaparral   Cismontane woodland   Ultramafic   Valley and foothill grassland                                |
| Geothlypis trichas sinuosa             | saltmarsh common yellowthroat       | ABPBX1201A  | 111      | G5T2       | S2        | None                 | None               |          | DFG_SSC-Species of Special Concern   USFWS_BCC-Birds of Conservation Concern       | Marsh and swamp   |
| Gratiola heterosepala                  | Boggs Lake hedge-hyssop             | PDSCR0R060  | 89       | G2         | S2        | None                 | Endangered         | 1B.2     | BLM_S-Sensitive  | Freshwater marsh   Marsh and swamp   Vernal pool   Wetland  |
| Helianthella castanea                  | Diablo helianthella                 | PDAST4M020  | 97       | G2         | S2        | None                 | None               | 1B.2     | BLM_S-Sensitive  | Broadleaved upland forest   Chaparral   Cismontane woodland   Coastal scrub   Valley and foothill grassland |
| Helminthoglypta nickliniana bridgesi   | Bridges' coast range shoulderband   | IMGASC2362  | 6        | G2T1       | S1        | None                 | None               |          | IUCN_DD-Data Deficient   | Valley and foothill grassland   |
| Hesperolinon breweri                   | Brewer's western flax               | PDLIN01030  | 24       | G2         | S2        | None                 | None               | 1B.2     | BLM_S-Sensitive  | Chaparral   Cismontane woodland   Ultramafic   Valley and foothill grassland                                |
| Hesperolinon tehamense                 | Tehama County western flax          | PDLIN010C0  | 51       | G2         | S2        | None                 | None               | 1B.3     | BLM_S-Sensitive  | Chaparral   Cismontane woodland   Ultramafic  |
| Hibiscus lasiocarpus var. occidentalis | woolly rose-mallow                  | PDMAL0H0R3  | 170      | G4         | S2.2      | None                 | None               | 1B.2     |  | Freshwater marsh   Marsh and swamp   Wetland  |
| Hydrochara rickseckeri                 | Ricksecker's water scavenger beetle | IICOL5V010  | 13       | G1G2       | S1S2      | None                 | None               |          |  | Aquatic   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters                    |
| Hydroprogne caspia                     | Caspian tern                        | ABNNM08020  | 3        | G5         | S4        | None                 | None               |          | IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern                    |   |
| Hypomesus transpacificus               | Delta smelt                         | AFCHB01040  | 27       | G1         | S1        | Threatened           | Endangered         |          | AFS_TH-Threatened   IUCN_EN-Endangered   | Aquatic   Estuary   |
| Icteria virens                         | yellow-breasted chat                | ABPBX24010  | 84       | G5         | S3        | None                 | None               |          | DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern                         | Riparian forest   Riparian scrub   Riparian woodland  |
| Isocoma arguta                         | Carquinez goldenbush                | PDAST57050  | 14       | G1         | S1        | None                 | None               | 1B.1     |  | Valley and foothill grassland   |
| Juglans hindsii                        | Northern California black walnut    | PDJUG02040  | 5        | G1         | S1.1      | None                 | None               | 1B.1     |  | Riparian forest   Riparian woodland   |

| ScientificName                                | CommonName                 | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus  | Habitat   |
|---|----------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|--|---|
| <i>Lasiurus blossevillii</i>                  | western red bat            | AMACC05060  | 119      | G5         | S3?       | None                 | None               |          | DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive   WBWG_H-High Priority   | Cismontane woodland   Lower montane coniferous forest   Riparian forest   Woodland                                |
| <i>Lasiurus cinereus</i>                      | hoary bat                  | AMACC05030  | 235      | G5         | S4?       | None                 | None               |          | IUCN_LC-Least Concern   WBWG_M-Medium Priority   | Broadleaved upland forest   Cismontane woodland   Lower montane coniferous forest   North coast coniferous forest |
| <i>Lasthenia conjugens</i>                    | Contra Costa goldfields    | PDAST5L040  | 34       | G1         | S1        | Endangered           | None               | 1B.1     |  | Cismontane woodland   Valley and foothill grassland   Vernal pool   Wetland                                       |
| <i>Laterallus jamaicensis coturniculus</i>    | California black rail      | ABNME03041  | 233      | G4T1       | S1        | None                 | Threatened         |          | ABC_WLBCC-Watch List of Birds of Conservation Concern   BLM_S-Sensitive   DFG_FP-Fully Protected   IUCN_NT-Near Threatened   USFWS_BCC-Birds of Conservation Concern | Brackish marsh   Freshwater marsh   Marsh and swamp   Salt marsh   Wetland  |
| <i>Lathyrus jepsonii</i> var. <i>jepsonii</i> | Delta tule pea             | PDFAB250D2  | 129      | G5T2       | S2.2      | None                 | None               | 1B.2     |  | Freshwater marsh   Marsh and swamp   Wetland  |
| <i>Legenere limosa</i>                        | legenere                   | PDCAM0C010  | 78       | G2         | S2.2      | None                 | None               | 1B.1     | BLM_S-Sensitive  | Vernal pool   Wetland   |
| <i>Lepidium latipes</i> var. <i>heckardii</i> | Heckard's pepper-grass     | PDBRA1M0K1  | 14       | G4T1       | S1.2      | None                 | None               | 1B.2     |  | Valley and foothill grassland   Vernal pool   Wetland   |
| <i>Lepidurus packardii</i>                    | vernal pool tadpole shrimp | ICBRA10010  | 274      | G3         | S2S3      | Endangered           | None               |          | IUCN_EN-Endangered   | Valley and foothill grassland   Vernal pool   Wetland   |
| <i>Leptosiphon jepsonii</i>                   | Jepson's leptosiphon       | PDPLM09140  | 39       | G2         | S2        | None                 | None               | 1B.2     |  | Chaparral   Cismontane woodland   Ultramafic  |
| <i>Lilaeopsis masonii</i>                     | Mason's lilaeopsis         | PDAP119030  | 196      | G2         | S2        | None                 | Rare               | 1B.1     |  | Freshwater marsh   Marsh and swamp   Riparian scrub   Wetland   |
| <i>Limnanthes vinculans</i>                   | Sebastopol meadowfoam      | PDLIM02090  | 43       | G1         | S1        | Endangered           | Endangered         | 1B.1     |  | Meadow and seep   Valley and foothill grassland   Vernal pool   Wetland   |
| <i>Limosella subulata</i>                     | Delta mudwort              | PDSCR10050  | 56       | G4?Q       | S2.1      | None                 | None               | 2.1      |  | Brackish marsh   Freshwater marsh   Marsh and swamp   Riparian scrub   Wetland                                    |
| <i>Linderiella occidentalis</i>               | California linderiella     | ICBRA06010  | 382      | G3         | S2S3      | None                 | None               |          | IUCN_NT-Near Threatened  | Vernal pool   |
| <i>Masticophis lateralis euryxanthus</i>      | Alameda whipsnake          | ARADB21031  | 145      | G4T2       | S2        | Threatened           | Threatened         |          |  | Chaparral   Cismontane woodland   Coastal scrub   Valley and foothill grassland                                   |
| <i>Melospiza melodia maxillaris</i>           | Suisun song sparrow        | ABPBXA301K  | 37       | G5T2       | S2        | None                 | None               |          | DFG_SSC-Species of Special   | Marsh and swamp   Wetland   |

| ScientificName                      | CommonName                               | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus   | Habitat   |
|-------------------------------------|--|-------------|----------|------------|-----------|----------------------|--------------------|----------|---|---|
| Melospiza melodia samuelis          | San Pablo song sparrow                   | ABPBXA301W  | 41       | G5T2?      | S2?       | None                 | None               |          | Concern   USFWS_BCC -Birds of Conservation Concern<br>DFG_SSC-Species of Special Concern   USFWS_BCC -Birds of Conservation Concern | Salt marsh  |
| Navarretia leucocephala ssp. bakeri | Baker's navarretia                       | PDPLM0C0E1  | 49       | G4T2       | S2        | None                 | None               | 1B.1     | BLM_S-Sensitive   | Cismontane woodland   Lower montane coniferous forest   Meadow and seep   Valley and foothill grassland   Vernal pool   Wetland |
| Neostapfia colusana                 | Colusa grass                             | PMPOA4C010  | 59       | G2         | S2        | Threatened           | Endangered         | 1B.1     |   | Vernal pool   Wetland   |
| Northern Claypan Vernal Pool        | Northern Claypan Vernal Pool             | CTT44120CA  | 21       | G1         | S1.1      | None                 | None               |          |   | Vernal pool   Wetland   |
| Northern Coastal Salt Marsh         | Northern Coastal Salt Marsh              | CTT52110CA  | 53       | G3         | S3.2      | None                 | None               |          |   | Marsh and swamp   Wetland   |
| Northern Vernal Pool                | Northern Vernal Pool                     | CTT44100CA  | 20       | G2         | S2.1      | None                 | None               |          |   | Vernal pool   Wetland   |
| Nyctinomops macrotis                | big free-tailed bat                      | AMACD04020  | 32       | G5         | S2        | None                 | None               |          | DFG_SSC-Species of Special Concern   IUCN_LC-Least Concern   WBWG_MH-Medium-High Priority   |   |
| Oenothera deltoides ssp. howellii   | Antioch Dunes evening-primrose           | PDONA0C0B4  | 9        | G5T1       | S1        | Endangered           | Endangered         | 1B.1     |   | Interior dunes  |
| Oncorhynchus mykiss irideus         | steelhead - central California coast DPS | AFCHA0209G  | 38       | G5T2Q      | S2        | Threatened           | None               |          | AFS_TH-Threatened   | Aquatic   Sacramento/San Joaquin flowing waters   |
| Orcuttia inaequalis                 | San Joaquin Valley Orcutt grass          | PMPOA4G060  | 47       | G1         | S1        | Threatened           | Endangered         | 1B.1     |   | Vernal pool   Wetland   |
| Pandion haliaetus                   | osprey                                   | ABNKC01010  | 482      | G5         | S3        | None                 | None               |          | CDF_S-Sensitive   DFG_WL-Watch List   IUCN_LC-Least Concern   | Riparian forest   |
| Perognathus inornatus inornatus     | San Joaquin pocket mouse                 | AMAFD01061  | 109      | G4T2T3     | S2S3      | None                 | None               |          | BLM_S-Sensitive   | Coastal scrub   Valley and foothill grassland   |
| Plagiobothrys hystriculus           | bearded popcornflower                    | PDBOR0V0H0  | 12       | G1G2       | S1S2      | None                 | None               | 1B.1     |   | Valley and foothill grassland   Vernal pool   Wetland   |
| Pogonichthys macrolepidotus         | Sacramento splittail                     | AFCJB34020  | 15       | G2         | S2        | None                 | None               |          | AFS_VU-Vulnerable   DFG_SSC-Species of Special Concern   IUCN_EN-Endangered   | Aquatic   Estuary   Freshwater marsh   Sacramento/San Joaquin flowing waters  |
| Polygonum marinense                 | Marin knotweed                           | PDPGN0L1C0  | 17       | G1Q        | S1.1      | None                 | None               | 3.1      |   | Brackish marsh   Marsh and swamp   Salt marsh   Wetland   |
| Rallus longirostris obsoletus       | California clapper rail                  | ABNME05016  | 92       | G5T1       | S1        | Endangered           | Endangered         |          | ABC_WLBCC-Watch List of Birds of Conservation Concern   DFG_FP-Fully Protected  | Brackish marsh   Marsh and swamp   Salt marsh   Wetland   |

| ScientificName                   | CommonName                  | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus   | Habitat  |
|----------------------------------|-----------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|---|--|
| Rana boylei                      | foothill yellow-legged frog | AAABH01050  | 804      | G3         | S2S3      | None                 | None               |          | BLM_S-Sensitive   DFG_SSC-Species of Special Concern   IUCN_NT-Near Threatened   USFS_S-Sensitive | Aquatic   Chaparral   Cismontane woodland   Coastal scrub   Klamath/North coast flowing waters   Lower montane coniferous forest   Meadow and seep   Riparian forest   Riparian woodland   Sacramento/San Joaquin flowing waters   |
| Rana draytonii                   | California red-legged frog  | AAABH01022  | 1327     | G4T2T3     | S2S3      | Threatened           | None               |          | DFG_SSC-Species of Special Concern   IUCN_VU-Vulnerable   | Aquatic   Artificial flowing waters   Artificial standing waters   Freshwater marsh   Marsh and swamp   Riparian forest   Riparian scrub   Riparian woodland   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters   South coast flowing waters   South coast standing waters   Wetland |
| Reithrodontomys raviventris      | salt-marsh harvest mouse    | AMAFF02040  | 137      | G1G2       | S1S2      | Endangered           | Endangered         |          | DFG_FP-Fully Protected   IUCN_EN-Endangered   | Marsh and swamp   Wetland  |
| Rhynchospora californica         | California beaked-rush      | PMCYP0N060  | 9        | G1         | S1.1      | None                 | None               | 1B.1     | BLM_S-Sensitive   | Freshwater marsh   Marsh and swamp   Meadow and seep   Wetland   |
| Riparia riparia                  | bank swallow                | ABPAU08010  | 268      | G5         | S2S3      | None                 | Threatened         |          | BLM_S-Sensitive   IUCN_LC-Least Concern   | Riparian scrub   Riparian woodland   |
| Saldula usingeri                 | Wilbur Springs shorebug     | IIHEM07010  | 4        | G1         | S1        | None                 | None               |          |   | Aquatic   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters   |
| Senecio aphanactis               | chaparral ragwort           | PDAST8H060  | 35       | G3?        | S1.2      | None                 | None               | 2.2      |   | Cismontane woodland   Coastal scrub  |
| Serpentine Bunchgrass            | Serpentine Bunchgrass       | CTT42130CA  | 22       | G2         | S2.2      | None                 | None               |          |   | Valley and foothill grassland  |
| Sidalcea hickmanii ssp. napensis | Napa checkerbloom           | PDMAL110A6  | 2        | G1         | S1        | None                 | None               | 1B.1     |   | Chaparral  |
| Sidalcea keckii                  | Keck's checkerbloom         | PDMAL110D0  | 16       | G1         | S1        | Endangered           | None               | 1B.1     | USFS_S-Sensitive  | Cismontane woodland   Valley and foothill grassland  |
| Sorex ornatus sinuosus           | Suisun shrew                | AMABA01103  | 15       | G5T1       | S1        | None                 | None               |          | DFG_SSC-Species of Special Concern  | Marsh and swamp   Wetland  |
| Speyeria zerene myrtleae         | Myrtle's silverspot         | IILEPJ6089  | 16       | G5T1       | S1        | Endangered           | None               |          | XERCES_CI-Critically Imperiled  | Coastal dunes  |
| Sternula antillarum browni       | California least tern       | ABNNM08103  | 67       | G4T2T3Q    | S2S3      | Endangered           | Endangered         |          | ABC_WLBCC-Watch List of Birds of Conservation Concern   DFG_FP-Fully Protected                    | Alkali playa   Wetland   |
| Stuckenia filiformis             | slender-leaved pondweed     | PMPOT03090  | 21       | G5         | S1S2      | None                 | None               | 2.2      |   | Marsh and swamp   Wetland  |



| ScientificName           | CommonName                                | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus  | Habitat  |
|--------------------------|---|-------------|----------|------------|-----------|----------------------|--------------------|----------|--|--|
| Symphyotrichum<br>lentum | Suisun Marsh<br>aster                     | PDASTE8470  | 169      | G2         | S2        | None                 | None               | 1B.2     |  | Brackish marsh  <br>Freshwater<br>marsh   Marsh<br>and swamp  <br>Wetland  |
| Syncaris pacifica        | California<br>freshwater<br>shrimp        | ICMAL27010  | 18       | G1         | S1        | Endangered           | Endangered         |          | IUCN_EN-<br>Endangered   | Aquatic  <br>Sacramento/San<br>Joaquin flowing<br>waters   |
| Taxidea taxus            | American<br>badger                        | AMAJF04010  | 454      | G5         | S4        | None                 | None               |          | DFG_SSC-<br>Species of<br>Special<br>Concern  <br>IUCN_LC-<br>Least<br>Concern | Alkali marsh  <br>Alkali playa  <br>Alpine   Alpine<br>dwarf scrub   Bog<br>and fen  <br>Brackish marsh  <br>Broadleaved<br>upland forest  <br>Chaparral  <br>Chenopod scrub<br>  Cismontane<br>woodland  <br>Closed-cone<br>coniferous forest<br>  Coastal bluff<br>scrub   Coastal<br>dunes   Coastal<br>prairie   Coastal<br>scrub   Desert<br>dunes   Desert<br>wash  <br>Freshwater<br>marsh   Great<br>Basin grassland  <br>Great Basin<br>scrub   Interior<br>dunes   lone<br>formation  <br>Joshua tree<br>woodland  <br>Limestone  <br>Lower montane<br>coniferous forest<br>  Marsh and<br>swamp   Meadow<br>and seep  <br>Mojavean desert<br>scrub   Montane<br>dwarf scrub  <br>North coast<br>coniferous forest<br>  Oldgrowth  <br>Pavement plain  <br>Redwood  <br>Riparian forest  <br>Riparian scrub  <br>Riparian<br>woodland   Salt<br>marsh   Sonoran<br>desert scrub  <br>Sonoran thorn<br>woodland  <br>Ultramafic  <br>Upper montane<br>coniferous forest<br>  Upper Sonoran<br>scrub   Valley<br>and foothill<br>grassland |
| Trichostema<br>rueggii   | Napa bluecurls                            | PDLAM220H0  | 19       | G2         | S2        | None                 | None               | 1B.2     |  | Chaparral  <br>Cismontane<br>woodland  <br>Lower montane<br>coniferous forest<br>  Valley and<br>foothill grassland<br>  Vernal pool  <br>Wetland  |
| Trifolium<br>amoenum     | showy<br>rancheria<br>clover              | PDFAB40040  | 26       | G1         | S1        | Endangered           | None               | 1B.1     |  | Coastal bluff<br>scrub   Ultramafic<br>  Valley and<br>foothill grassland  |
| Trifolium<br>hydrophilum | saline clover                             | PDFAB400R5  | 44       | G2         | S2        | None                 | None               | 1B.2     |  | Marsh and<br>swamp   Valley<br>and foothill<br>grassland  <br>Vernal pool  <br>Wetland   |
| Tuctoria<br>mucronata    | Crampton's<br>tuctoria or<br>Solano grass | PMPOA6N020  | 3        | G1         | S1        | Endangered           | Endangered         | 1B.1     |  | Valley and<br>foothill grassland<br>  Vernal pool  <br>Wetland   |

| ScientificName                     | CommonName                         | ElementCode | OccCount | GlobalRank | StateRank | FederalListingStatus | StateListingStatus | CNPSList | OtherStatus  | Habitat   |
|------------------------------------|------------------------------------|-------------|----------|------------|-----------|----------------------|--------------------|----------|--|---|
| Valley<br>Needlegrass<br>Grassland | Valley<br>Needlegrass<br>Grassland | CTT42110CA  | 45       | G3         | S3.1      | None                 | None               |          |  | Valley and<br>foothill grassland  |
| Viburnum<br>ellipticum             | oval-leaved<br>viburnum            | PDCPR07080  | 29       | G5         | S2.3      | None                 | None               | 2.3      |  | Chaparral  <br>Cismontane<br>woodland  <br>Lower montane<br>coniferous forest |
| Xanthocephalus<br>xanthocephalus   | yellow-headed<br>blackbird         | ABPBXB3010  | 9        | G5         | S3S4      | None                 | None               |          | DFG_SSC-<br>Species of<br>Special<br>Concern  <br>IUCN_LC-<br>Least<br>Concern | Marsh and<br>swamp   Wetland  |

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## Appendix G Native Trees Mapped in the Study Area

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Native Trees Mapped in the Study Area

| ID* | Species           | TOTAL DBH<br>(from multiple<br>stems) | DBH1_in | DBH2_in | DBH3_in | DBH4_in | DBH5_in | DBH6_in | DBH7_in | DBH8_in | Drip_diam_ | Height_ft | Vigor |
|-----|-------------------|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|------------|-----------|-------|
| 1   | Coast Live Oak    | 8                                     | 8       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 20        | Good  |
| 2   | Coast Live Oak    | 12                                    | 12      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 25        | Good  |
| 3   | Coast Live Oak    | 43                                    | 18      | 25      | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 4   | Valley Oak        | 14                                    | 6       | 8       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 22        | Good  |
| 5   | Valley Oak        | 8                                     | 8       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 8          | 20        | Good  |
| 6   | Coast Live Oak    | 17                                    | 17      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 32        | Good  |
| 7   | Valley Oak        | 7                                     | 7       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 7          | 21        | Good  |
| 8   | Valley Oak        | 26                                    | 26      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 18         | 35        | Good  |
| 9   | Coast Live Oak    | 16                                    | 16      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 30        | Good  |
| 10  | Coast Live Oak    | 27                                    | 27      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 35        | Good  |
| 11  | Coast Live Oak    | 15                                    | 15      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 18         | 30        | Good  |
| 12  | Coast Live Oak    | 18                                    | 8       | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 18         | 28        | Good  |
| 13  | Coast Live Oak    | 11                                    | 11      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 25        | Good  |
| 14  | Coast Live Oak    | 17                                    | 7       | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 18         | 25        | Good  |
| 15  | Coast Live Oak    | 29                                    | 29      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 22         | 35        | Good  |
| 16  | Coast Live Oak    | 32                                    | 32      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 17  | Coast Live Oak    | 30                                    | 30      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 18  | Coast Live Oak    | 27                                    | 27      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 19  | Coast Live Oak    | 28                                    | 6       | 4       | 4       | 5       | 5       | 4       | 0       | 0       | 20         | 22        | Good  |
| 20  | Coast Live Oak    | 18                                    | 9       | 3       | 6       | 0       | 0       | 0       | 0       | 0       | 15         | 22        | Good  |
| 21  | Coast Live Oak    | 20                                    | 20      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 17         | 30        | Good  |
| 22  | Coast Live Oak    | 19                                    | 19      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 17         | 30        | Good  |
| 23  | Coast Live Oak    | 30                                    | 22      | 4       | 4       | 0       | 0       | 0       | 0       | 0       | 17         | 30        | Good  |
| 24  | Coast Live Oak    | 32                                    | 32      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 17         | 32        | Good  |
| 25  | Valley Oak        | 80                                    | 80      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 45         | 60        | Good  |
| 26  | Coast Live Oak    | 42                                    | 10      | 29      | 3       | 0       | 0       | 0       | 0       | 0       | 18         | 30        | Good  |
| 27  | Coast Live Oak    | 29                                    | 6       | 14      | 9       | 0       | 0       | 0       | 0       | 0       | 18         | 30        | Good  |
| 28  | Coast Live Oak    | 10                                    | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 25        | Good  |
| 29  | Coast Live Oak    | 9                                     | 9       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 20        | Good  |
| 30  | Coast Live Oak    | 82                                    | 32      | 20      | 30      | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 31  | Coast Live Oak    | 38                                    | 15      | 8       | 15      | 0       | 0       | 0       | 0       | 0       | 17         | 35        | Good  |
| 32  | Coast Live Oak    | 6                                     | 6       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 28        | Good  |
| 33  | Coast Live Oak    | 9                                     | 9       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 19        | Good  |
| 34  | Interior Live Oak | 21                                    | 16      | 5       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 30        | Good  |

Native Trees Mapped in the Study Area

| ID* | Species           | TOTAL DBH<br>(from multiple<br>stems) | DBH1_in | DBH2_in | DBH3_in | DBH4_in | DBH5_in | DBH6_in | DBH7_in | DBH8_in | Drip_diam_ | Height_ft | Vigor |
|-----|-------------------|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|------------|-----------|-------|
| 35  | Valley Oak        | 27                                    | 9       | 10      | 8       | 0       | 0       | 0       | 0       | 0       | 18         | 25        | Good  |
| 36  | Coast Live Oak    | 59                                    | 29      | 30      | 0       | 0       | 0       | 0       | 0       | 0       | 22         | 33        | Good  |
| 37  | Coast Live Oak    | 62                                    | 29      | 33      | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 38  | Coast Live Oak    | 17                                    | 17      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 16         | 30        | Good  |
| 39  | Coast Live Oak    | 6                                     | 6       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10         | 25        | Good  |
| 40  | Coast Live Oak    | 6                                     | 6       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 10         | 20        | Good  |
| 41  | Coast Live Oak    | 12                                    | 5       | 7       | 0       | 0       | 0       | 0       | 0       | 0       | 10         | 20        | Good  |
| 42  | Coast Live Oak    | 40                                    | 40      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 35        | Good  |
| 43  | Coast Live Oak    | 23                                    | 23      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 19         | 28        | Good  |
| 44  | Coast Live Oak    | 23                                    | 5       | 5       | 6       | 7       | 0       | 0       | 0       | 0       | 15         | 20        | Good  |
| 45  | Coast Live Oak    | 17                                    | 17      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 22        | Good  |
| 46  | Valley Oak        | 28                                    | 28      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 30        | Good  |
| 47  | Valley Oak        | 19                                    | 13      | 6       | 0       | 0       | 0       | 0       | 0       | 0       | 16         | 25        | Good  |
| 48  | Coast Live Oak    | 20                                    | 14      | 6       | 0       | 0       | 0       | 0       | 0       | 0       | 16         | 25        | Good  |
| 49  | Interior Live Oak | 60                                    | 22      | 38      | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 33        | Good  |
| 50  | Valley Oak        | 52                                    | 22      | 30      | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 35        | Good  |
| 51  | Valley Oak        | 78                                    | 25      | 20      | 17      | 7       | 9       | 0       | 0       | 0       | 25         | 35        | Good  |
| 52  | Interior Live Oak | 85                                    | 32      | 10      | 27      | 7       | 9       | 0       | 0       | 0       | 30         | 40        | Good  |
| 53  | Valley Oak        | 79                                    | 35      | 44      | 0       | 0       | 0       | 0       | 0       | 0       | 30         | 40        | Good  |
| 54  | Interior Live Oak | 65                                    | 50      | 15      | 0       | 0       | 0       | 0       | 0       | 0       | 30         | 45        | Good  |
| 55  | Interior Live Oak | 100                                   | 50      | 50      | 0       | 0       | 0       | 0       | 0       | 0       | 30         | 45        | Good  |
| 56  | Valley Oak        | 39                                    | 39      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 32         | 44        | Good  |
| 57  | Interior Live Oak | 14                                    | 14      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 18         | 30        | Good  |
| 58  | Interior Live Oak | 18                                    | 18      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 30        | Good  |
| 59  | Interior Live Oak | 16                                    | 16      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 30        | Good  |
| 60  | Interior Live Oak | 20                                    | 20      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 30        | Good  |
| 61  | Interior Live Oak | 22                                    | 22      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 21         | 32        | Good  |
| 62  | Interior Live Oak | 59                                    | 59      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 30         | 50        | Good  |
| 63  | Interior Live Oak | 79                                    | 20      | 15      | 14      | 21      | 9       | 0       | 0       | 0       | 32         | 40        | Good  |
| 64  | Valley Oak        | 65                                    | 65      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 30         | 50        | Good  |
| 65  | Interior Live Oak | 18                                    | 18      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 22         | 35        | Good  |
| 66  | Valley Oak        | 35                                    | 35      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 40        | Good  |
| 67  | Valley Oak        | 30                                    | 30      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 25         | 40        | Good  |
| 68  | Valley Oak        | 7                                     | 7       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 6          | 24        | Good  |

# Native Trees Mapped in the Study Area

| ID* | Species           | TOTAL DBH<br>(from multiple<br>stems) | DBH1_in | DBH2_in | DBH3_in | DBH4_in | DBH5_in | DBH6_in | DBH7_in | DBH8_in | Drip_diam_ | Height_ft | Vigor |
|-----|-------------------|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|------------|-----------|-------|
| 69  | Interior Live Oak | 29                                    | 7       | 22      | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 30        | Good  |
| 70  | Valley Oak        | 18                                    | 18      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 30        | Good  |
| 71  | Valley Oak        | 40                                    | 40      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 22         | 36        | Good  |
| 72  | Interior Live Oak | 159                                   | 51      | 72      | 36      | 0       | 0       | 0       | 0       | 0       | 30         | 50        | Good  |
| 73  | Valley Oak        | 6                                     | 6       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 6          | 18        | Good  |
| 74  | Valley Oak        | 10                                    | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 6          | 22        | Good  |
| 75  | Interior Live Oak | 5                                     | 5       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 6          | 19        | Good  |
| 76  | Valley Oak        | 5                                     | 5       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 6          | 15        | Good  |
| 77  | Valley Oak        | 18                                    | 18      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 30        | Good  |
| 78  | Valley Oak        | 18                                    | 18      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 20         | 30        | Good  |
| 100 | Interior Live Oak | 10                                    | 10      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 20        | Fair  |
| 101 | Interior Live Oak | 7                                     | 7       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 12         | 17        | Fair  |
| 102 | Interior Live Oak | 5                                     | 5       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 4          | 9         | Fair  |
| 103 | Interior Live Oak | 7                                     | 4       | 3       | 0       | 0       | 0       | 0       | 0       | 0       | 4          | 9         | Fair  |
| 104 | Interior Live Oak | 8                                     | 8       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 30        | Fair  |
| 105 | Interior Live Oak | 11                                    | 11      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 15         | 35        | Fair  |

\*ID refers to tree numbers shown on Figures 3-1 and 3-2.□

Removed for the eastbound Cordelia truck scales project.

Removed for widening of SR 12W.





## Appendix H Agency Consultation

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U.S. Army Corps of Engineers  
Jurisdictional Determination





**DEPARTMENT OF THE ARMY**  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

**JUL 09 2009**

REPLY TO

Regulatory Division

SUBJECT: File Number SPN-2007-400401 N

Mr. Jeffery Jensen  
Division of Biological Sciences and Permits  
California Department of Transportation  
Post Office Box 23660  
Oakland, California 94623-0660

Dear Mr. Jensen:

This letter is written in response to your submittal of March 20, 2008, requesting confirmation of the extent of Corps of Engineers jurisdiction for the Interstate 80/Interstate 680/State Route 12 Interchange Project in Solano County, California.

Enclosed are maps showing the extent and location of Corps of Engineers jurisdiction. We have based this jurisdictional delineation on the current conditions on the site as verified during site visits performed by our staff on January 6, 2009, January 7, 2009, and April 1, 2009. A change in those conditions may also change the extent of our jurisdiction. This jurisdictional delineation will expire in five years from the date of this letter. However, if there has been a change in circumstances that affects the extent of Corps jurisdiction, a revision may be completed before that date.

You are advised that the Corps has established an Administrative Appeal Process, as described in 33 C.F.R. Part 331 (65 Fed. Reg. 16,486; March 28, 2000), and outlined in the enclosed flowchart and "Notification of Administrative Appeal Options, Process, and Request for Appeal" form (NAO-RFA). If you do not intend to accept the approved jurisdictional determination, you may elect to provide new information to the District Engineer for reconsideration or submit a completed NAO-RFA form to the Division Engineer to initiate the appeal process. You will relinquish all rights to appeal, unless the Corps receives new information or a completed NAO-RFA form within sixty (60) days of the date of the NAO-RFA.

Should you have any questions regarding this matter, please call Andrea Meier of our Regulatory Division at 415-503-6798. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter. If you would like to provide comments on our permit review process, please complete the Customer Survey Form available online at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,

ORIGINAL SIGNED

BY *James M. Johnson*  
ACTING CHIEF, REG. DIV., SOUTH BR.

FOR

Jane M. Hicks

Chief, Regulatory Division

Enclosures

Copies furnished (with wetland delineation maps to follow via email):

CA RWQCB, Oakland, CA  
CA SWRCB, Sacramento, CA  
US EPA, San Francisco, CA  
US FWS, Sacramento, CA

CF:

CESPN-R (Rdg File)

*AM*  
MEIER  
CESPN-R  
-6798  
06/24/09

*AM*  
MARTEL  
CESPN-R

*AM*  
JOHNSON  
CESPN-R-S *7/2/09*

HICKS  
CESPN-R  
JUL 09 2009

# Floodplain Issue







U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION NINE  
CALIFORNIA DIVISION  
980 Ninth Street, Suite 400  
Sacramento, CA 95814-2724

ARIZONA  
CALIFORNIA  
NEVADA  
HAWAII  
GUAM  
AMERICAN SAMOA  
N. MARIANA IS.

April 13, 1998

IN REPLY REFER TO  
HA-CA

File #: 540-General Hydraulics  
Document #: S19056

Mr. James W. van Loben Sels, Director  
CALTRANS, 1120 N Street  
Sacramento, California 95814

Attention: Federal Resources Branch, Room 3500  
for Mr. Robert L. Buckley

Dear Mr. van Loben Sels:

SUBJECT: FLOODING ON MAJOR FACILITIES

The Federal Highway Administration (FHWA) is concerned with recent partial and full closures of major facilities during this year's winter storms in that storm intensities did not appear great enough, yet caused flooding and closures on some major facilities including the Interstate System which should be capable of passing a 50-year flood event without encroachment of through lanes.

FHWA sees this as an opportunity to focus on those facilities which experienced this type of flooding by performing engineering studies to determine the need for improvements to meet current capacity standards and to repair the conditions that contributed to closures. Some examples of impacted facilities include I-580 near Marina Vista, State Route 4 near Loveridge, I-80 at Redtop Road Slide, State Route 101 at Lucky Drive in Marin County, Interstate 80 between the West Texas Street and Abernathy Road exits in Fairfield, and State Route 37. Again, FHWA sees this as a great opportunity to provide solutions with construction projects that would prevent future closures during heavy winter rain periods. A good example is a recent project using lightweight fill on the I-680 undulations near the Benicia-Martinez Bridge where the facility has experienced many closures in past years.

Mr. Arlo Waddoups, our Regional Hydraulic Engineer, and the California Division Office can offer technical assistance on this matter. Should you have any questions, please call Brett Jackson at (916) 498-5852.

Sincerely,

/s/ Bradley D. Keazer

For  
Jeffrey A. Lindley  
Division Administrator



## Section 6002 of the Safe, Accountable, Flexible, Efficient, Transportation Act: A Legacy for Users





DEPARTMENT OF THE ARMY  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

REPLY TO  
ATTENTION OF

Regulatory Division

DEC 31 2009

SUBJECT: File Number SPN-2007-400401 S

Ms. Melanie Brent  
Office of Environmental Analysis  
California Department of Transportation, District 4  
PO Box 23660  
Oakland, California 94623-0660

Dear Ms. Brent:

This letter is written in response to your invitation to become a cooperating agency for the preparation of an environmental impact statement (EIS) for the Interstate 80/Interstate 680/State Route 12 Interchange Project in accordance with the SAFETEA-LU authority. We would like to accept your invitation to become a cooperating agency during the development of the EIS for this project.

We would like to take this opportunity to emphasize that one of our greatest concerns is cumulative impacts to waters of the U.S. in the I-80/I-680/SR-12 corridor from transportation projects, residential development, and commercial/industrial development. As a cooperating agency, we will be encouraging a thorough evaluation of cumulative impacts to waters of the U.S. in this area, that we hope will include those areas of concern presented in our August 6, 2009 letter.

As a part of your standard permit application package, we will require that you provide information to perform an alternatives analysis to satisfy our requirements in the Clean Water Act Section 404(b)(1) Guidelines. The information and analysis needed can be incorporated into your EIS or it can be completed as a separate document. We look forward to assisting you in guiding your collection of pertinent information and guiding you through the 404(b)(1) analysis for the project.

Should you have any questions regarding this matter, please call Andrea Meier of our Regulatory Division at 415-503-6798 or email her at [andrea.j.meier@usace.army.mil](mailto:andrea.j.meier@usace.army.mil). Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter.

Sincerely,

A handwritten signature in cursive script that reads "Jane M. Hicks".

Jane M. Hicks  
Chief, Regulatory Division

Copy Furnished:

US EPA, San Francisco, CA

## Section 106 of the National Historic Preservation Act





**DEPARTMENT OF TRANSPORTATION**

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October 14, 2009

Mr. Milford Wayne Donaldson, FAIA  
State Historic Preservation Officer  
Office of Historic Preservation  
1416 Ninth Street, Room 1442-7  
Sacramento, CA 95814

RE: Historic Property Survey Report for the I-80/I-680/SR-12 interchange project in Solano County (EA 0A5300)

Dear Mr. Donaldson:

The California Department of Transportation (Caltrans), under the authority of the Federal Highway Administration (FHWA), is initiating consultation with the State Historic Preservation Officer (SHPO) regarding the I-80/I-680/SR-12 interchange project in Solano County. This consultation is undertaken in accordance with the January 1, 2004 *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation (PA)*.

Caltrans is initiating this consultation as a federal agency, following the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation concerning the state of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007. The MOU was signed pursuant to Section 6004 of the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which allows the Secretary of Transportation to assign, and the State of California to Assume, responsibility for compliance with federal environmental laws with respect to some highway projects in California. For those projects, the state may also be assigned FHWA's responsibilities for environmental consultation and coordination under other federal environmental laws. By statute, the state is deemed to be a federal agency for these assigned responsibilities. In that this project is covered by the above referenced MOU, FHWA has assigned, and Caltrans has assumed, FHWA responsibility for environmental review, consultation, and coordination on this project. Please direct all future correspondence on this project to Caltrans.

The undertaking includes improvements to the I-80/I-680/SR-12 interchange, widening of all three highways, and the relocation and expansion of the westbound truck scales on I-80.

Two full-build alternatives are being considered (alternatives B and C). Alternative B retains the current alignments for I-80 and I-680, while alternative C would realign I-680 to the west to connect directly with the I-80/SR-12W interchange. Completion of construction for the full-build alternatives is anticipated to take approximately 30 years to complete. Each of the two alternatives has a phase I component that represents a funded phase with logical termini and independent utility. The alignments and construction footprints for each full-build alternative and the phase I component of each alternative are shown on the Area of Potential Effect (APE) maps in the Historic Property Survey Report (HPSR).

Enclosed is an HPSR for this undertaking, with attached Historic Resource Evaluation Report (HRER) and Archaeological Survey Report (ASR). The HRER includes DPR forms for 210 properties, including the Village of Cordelia Historic District and 11 individual properties in Suisun City that have previously been determined eligible for inclusion on the National Register of Historic Places. The HRER concludes that five properties that were previously determined to be contributors to the Cordelia Historic District are no longer contributors. Three of these (Map Reference Numbers 7, 8, and 11) have been demolished in recent years and two (Map Ref. Nos. 26 and 31) have lost integrity due to recent alterations. The HRER also concludes that two additional properties are eligible for National Register listing:

- Neitzel Farm at 3936 Suisun Valley Road, Map Reference Number 51
- Suisun City Historic District, including most of the properties from Map Reference Number 63 through 208. The district includes 95 contributing and 36 non-contributing properties. The district boundary, with contributing and non-contributing properties indicated, is shown on Sheet 14a of the APE map.

We are consulting with you under Stipulation VIII.C.5 of the PA, and request your concurrence on the following:

- Properties 26 and 31 are no longer contributors to the Cordelia Historic District
- Property 51 and the Suisun City Historic District are eligible for inclusion on the National Register of Historic Places.
- The remaining properties that have not previously been evaluated are ineligible for National Register listing.

As discussed in the Archaeological Survey Report, two archaeological resources were identified within the APE through archival research. The included sensitivity assessment identified large areas of the APE as highly sensitive for buried resources. Because the recorded sites and sensitive zones are located in areas covered by pavement and sidewalks, the presence of the two known resources and any buried resources within the project footprint cannot be determined at this time. Limited access to these areas, the high potential for buried archaeological resources, the number of alternatives under consideration, and long timeframe for the ultimate build-out pose formidable challenges to completing the identification of potential archaeological properties within the APE. We propose that identification and evaluation of archaeological properties within the APE, and any necessary resolution of adverse effects upon those properties, be provided for in a programmatic agreement specific to this undertaking.

It is anticipated that a Historic Properties Treatment Plan (HPTP), including a detailed protocol for

identification, evaluation, and treatment of any affected historic properties, will be developed and attached to the programmatic agreement. The HPTP will also include protocols for archaeological monitoring, and evaluation and treatment of unanticipated discoveries that may be encountered during implementation of the undertaking.

If you have any questions or need any additional information, please do not hesitate to contact architectural historian Andrew Hope at (916) 654-5611 or archaeologist Brett Rushing at (510) 286-6336.

Sincerely,



JENNIFER DARCANGELO  
Chief, Office of Cultural Resource Studies  
California Department of Transportation  
District 4

Enclosure: HPSR with HRER and ASR

c: Jill Hupp, Cultural and Community Studies Office, Caltrans Headquarters



**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

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March 20, 2010

Reply To: FHWA091021B

Jennifer Darcangelo  
Chief, Office of Cultural Resource Studies  
Caltrans District 4  
PO Box 23660  
Oakland, CA 94623-0660

Re: Determinations of Eligibility for the Proposed I-80/I-680/SR-12 Interchange Project in Solano, CA

Dear Ms. Darcangelo:

Thank you for consulting with me about the subject undertaking in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (PA)*.

The California Department of Transportation (Caltrans) is requesting my concurrence, pursuant to Stipulation VIII.C.5 of the PA, that the following properties are not eligible for the National Register of Historic Places (NRHP):

- Claus & Henry Mangels Sheep Barn and Ranch, Fairfield, CA
- Utility Buildings, 0148260040, Fairfield, CA
- 3360 Ramsey Road, Fairfield, CA
- 2172 Bridgeport Avenue, Cordelia, CA
- 3607 Ritchie Road, Fairfield, CA
- 3605 Thompson Court, Fairfield, CA
- 3617 Ritchie Road, Fairfield, CA
- 3621 Ritchie Road, Fairfield, CA
- Utility Building, 004-530-0030, Fairfield, CA
- Cordelia Truck Scales, Fairfield, CA
- 2543/2547 Cordelia Road, Cordelia, CA
- Irrigation Ditch adjacent to APN 0027272180
- 4012 Russel Road, Fairfield, CA
- 2621 Cordelia Road, Cordelia, CA
- 4015 Hale Ranch Road, Fairfield, CA
- 2814 Rockville Road, Fairfield, CA
- 2818 Rockville Road, Fairfield, CA
- 260 Benton Court, Suisun City, CA
- 212 Sacramento Street, Suisun City, CA
- 216 Sacramento Street, Suisun City, CA
- 520 School Street, Suisun City, CA
- 302, 304 Sacramento Street, Suisun City, CA
- 515 Suisun Street, Suisun City, CA
- 306 Sacramento Street, Suisun City, CA
- 701 West Street, Suisun City, CA
- 705 West Street, Suisun City, CA
- 201 California Street, Suisun City, CA
- 205 California Street, Suisun City, CA
- 806 West Street, Suisun City, CA
- 808 West Street, Suisun City, CA
- 206 Morgan Street, Suisun City, CA
- 1012 Suisun Street, Suisun City, CA
- 1009 Main Street, Suisun City, CA
- 1013 Main Street, Suisun City, CA
- 510 Cordelia Road, Suisun City, CA
- 516 Cordelia Road, Suisun City, CA
- 519 Line Street, Suisun City, CA

Based on my review of the submitted documentation, I concur with the above determinations.

Caltrans is also requesting my concurrence that 2100 Bridgeport Avenue and 2124 Bridgeport Avenue no longer contribute to the *Village Cordelia Historic District* due to substantial alterations that have diminished the historic integrity of the buildings. I concur.

Caltrans determined that the property located at 3936 Suisun Valley Road is eligible for the NRHP. I cannot concur with this determination based on additional information that the buildings on the property are no longer extant.

Caltrans is also requesting my concurrence that the Suisun City Historic District is eligible for the NRHP under criterion A, at the local level of significance, in the area of community development during the period of 1880-1934, and under Criterion C in the area of architecture. The district reflects distinctive examples of late nineteenth and early twentieth century architecture. I concur.

Caltrans also proposes that identification and evaluation of archeological properties within the APE, and any resolution of adverse effects on those properties, be provided for in a programmatic agreement (PA) specific to this undertaking. An attachment to the PA will include a Historic Properties Treatment Plan (HPTP) to be developed that will include a detailed protocol for identification, evaluation and treatment of any affected historic properties. The HPTP will also include protocols for archeological monitoring, and evaluation and treatment of unanticipated discoveries that may be encountered during implementation of the undertaking. I agree that the PA and HPTP are appropriate for this situation.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 654-0631 or e-mail at [nlindquist@parks.ca.gov](mailto:nlindquist@parks.ca.gov) or Dwight Dutschke at (916) 653-9134 or e-mail at [ddutschke@parks.ca.gov](mailto:ddutschke@parks.ca.gov).

Sincerely,

A handwritten signature in cursive script that reads "Susan H. Stratton for".

Milford Wayne Donaldson, FAIA  
State Historic Preservation Officer



**PROGRAMMATIC AGREEMENT  
BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION  
AND THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE I-80/I-680/SR-12 INTERCHANGE PROJECT,  
SOLANO COUNTY, CALIFORNIA**

**WHEREAS**, the Federal Highway Administration (FHWA) has assigned and the California Department of Transportation (Caltrans) has assumed FHWA responsibility for environmental review, consultation, and coordination under the provisions of the *Memorandum of Understanding (MOU) between the Federal Highway Administration and the California Department of Transportation Concerning the State of California's Participation in the Surface Transportation Project Delivery Pilot Program*, which became effective on July 1, 2007 and applies to this project; and,

**WHEREAS**, Caltrans and the Solano Transportation Authority (STA) propose to implement the I-80/I-680/SR-12 Project (Undertaking), located near the cities of Fairfield and Suisun City in Solano County, that currently consists of two ultimate alternatives (Alternatives B and C) and two fundable alternatives (Alternative B Phase I and Alternative C Phase 1) that will be constructed in a number of stages; and,

**WHEREAS**, Caltrans has consulted with the State Historic Preservation Officer (SHPO) pursuant to the 1 January 2004 *Programmatic Agreement Among The Federal Highway Administration, The Advisory Council On Historic Preservation, The California State Historic Preservation Officer, And The California Department Of Transportation Regarding Compliance With Section 106 Of The National Historic Preservation Act, As It Pertains To The Administration Of The Federal-Aid Highway Program In California* (Federal-Aid Highway PA), and, where the Federal-Aid Highway PA so directs, in accordance with 36 CFR Part 800, the regulation implementing Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f), as amended (NHPA), regarding the Undertaking's potential to affect historic properties, has decided to prepare a programmatic agreement (PA) pursuant to 36 CFR §800.4(b)(2) and 800.14(b), and has notified the Advisory Council on Historic Preservation (ACHP) that a PA will be prepared, pursuant to 36 CFR § 800.6(a)(1)(i)(C), who is not participating by their letter dated March 7, 2011; and

**WHEREAS**, Caltrans has chosen to prepare this PA to ensure completion of the identification and evaluation of potential historic properties within the Undertaking's Area of Potential Effects (APE), and provide for the resolution of any adverse effects on identified historic properties subsequent to its approval of the Undertaking; and

**WHEREAS**, the Undertaking, as currently proposed, has the potential to affect historic properties, including the Village of Cordelia Historic District, the Suisun City Historic District, and the Suisun City Train Depot that have been determined eligible for listing in the National Register of Historic Places (NRHP), and may affect archaeological properties and resources of significance to Native Americans that have not yet been identified; and

**WHEREAS**, the Yocha Dehe Wintun Nation has participated in the consultation and has been invited to concur in this PA, and Caltrans will continue to afford them, should they so desire, with the opportunity to participate in the implementation of this PA and the undertaking; and

**WHEREAS**, Caltrans has initiated consultation with the Cortina Band of Indians regarding the proposed undertaking and its effects on historic properties, and will continue to afford them, should they so desire, with the opportunity to participate in the implementation of this PA and the undertaking; and

**WHEREAS**, Caltrans District 04 (District 04) and the STA have participated in the consultation and have been invited to concur in this PA;



**NOW, THEREFORE**, Caltrans and the SHPO agree that, upon Caltrans' decision to proceed with the Undertaking, Caltrans shall ensure that the Undertaking is implemented in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties and further agree that these stipulations shall govern the Undertaking and all of its parts until this PA expires or is terminated.

## **STIPULATIONS**

Caltrans shall ensure that the following measures are carried out:

### **I. AREA OF POTENTIAL EFFECTS**

- A. The APE for the Undertaking is described and depicted in the 2009 Historic Property Survey Report (HPSR) for the Undertaking. The APE encompasses the maximum extent of the area anticipated to be potentially affected, directly or indirectly, by construction of either of the ultimate alternatives. The APE is included within Attachment 1 of this PA.
- B. If Caltrans determines modifications to the Undertaking subsequent to the execution of this PA or identification results necessitate revision of the APE, Caltrans will submit the appropriate APE revisions to the PA parties along with any documentation prepared to complete identification, evaluation and effects assessments for each stage of the proposed project. In this manner, the APE may be amended without amending the PA. Revisions to the APE will be consistent with guidance in Attachment 3 of the Federal-Aid Highway PA.

### **II. PHASED IDENTIFICATION, EVALUATION, AND APPLICATION OF THE CRITERIA OF ADVERSE EFFECTS**

Caltrans shall, upon its decision to proceed with future stages of the Undertaking, and prior to the start of construction for that stage, complete its efforts to identify, evaluate, and apply the criteria of adverse effect to historic properties within the APE for that stage in accordance with 36 CFR §800.4(b)(1), §800.4(c)-(d), and §800.5(a)(1) as follows:

#### **A. Archaeological Resources**

- 1. All work regarding the identification, evaluation, assessment of effects, and mitigation of any adverse effects on archaeological resources shall be completed for future stages of the Undertaking with the approval of Caltrans Professionally Qualified Staff (CTPQS) in the appropriate discipline and in accordance with the Federal-Aid Highway PA.
- 2. Due to the general lack of surface visibility, access limitations, lack of design detail, and potential for subsurface archaeological resources within the APE, STA in consultation with District 04 and the Yocha Dehe Wintun Nation, prior to the construction of each stage, shall assess the impacts of that stage against the extent of the previous efforts to identify archaeological resources and the archaeological sensitivity of the location, and prepare for District 04 approval, a Historic Properties Identification Proposal (HPIP) detailing what additional actions will be taken to identify archaeological resources within the footprint of that stage. The assessment shall include impacts associated with utility relocation and tree removal. The HPIP may include more than one stage, provided sufficient design detail has been prepared to assess the impacts and any access limitations have been resolved.



3. If a conclusion that no further efforts to identify archaeological resources is justified in the HPIP, and District 04 agrees, District 04 will notify the other PA parties of this finding and allow 30 days for the parties to comment. Any objection received within 30 days will be resolved in accordance with Stipulation VIII.C of this PA.
4. If subsurface exploration is indicated, the HPIP shall include an Extended Phase I (XPI) proposal, consistent with Caltrans policies and guidelines and the October 2010 *Historic Properties Treatment Plan, I-80/I-680/SR-12 Interchange Project* (Treatment Plan), and any subsequent addenda to the Treatment Plan. The Treatment Plan is included as Attachment 1 of this PA.
5. Any approved XPI investigations shall occur prior to construction. An XPI report, consistent with Caltrans guidelines, documenting the results of any XPI investigations, shall be submitted to the Yocha Dehe Wintun Nation for 30 day review and District 04 for review and approval. If archaeological resources are identified as a result of XPI investigations or during construction of any stage, and those resources can be protected during construction from any project effects by the establishment and effective enforcement of an Environmentally Sensitive Area (ESA), those resources may be considered eligible for the NRHP for the purposes of the Undertaking without conducting additional subsurface testing or surface collecting in accordance with Stipulation VIII.C.3 of the Federal-Aid Highway PA.
6. If archaeological resources are identified that do not appear eligible for listing in the NRHP, documentation supporting that determination shall be included in the XPI report. If the Yocha Dehe Wintun Nation and District 04 agree with the determination, District 04 will submit the documentation to SHPO for concurrence in accordance with Stipulation VIII.C.5 of the Federal-Aid Highway PA.
7. If archaeological resources considered eligible for listing in the NRHP are identified as a result of XPI investigations or the monitoring of construction excavations for any stage, and those resources cannot be protected from any potential effects by the establishment of an ESA, Caltrans shall follow section C of this stipulation and the Treatment Plan.

## **B. Built Environment Resources**

1. All work regarding the identification, evaluation, assessment of effects, and mitigation of any adverse effects on built environment resources shall be completed for future stages of the Undertaking with the approval of Caltrans Professionally Qualified Staff (CTPQS) in the appropriate discipline and in accordance with the Federal-Aid Highway PA.
2. STA, in consultation with District 04, shall include in the HPIP an assessment of the adequacy of the previous built environment studies against the design details of that stage, and include any additional built environment properties in an amended APE. The assessment shall also consider the need to re-evaluate properties due to the passage of time and changing conditions.
3. If any additional built environment properties are identified within an amended APE that do not qualify as exempt under Stipulation VIII.C.1 and Attachment 04 of the Federal-Aid Highway PA, prior to the construction of each stage, STA in consultation with District 04,

shall evaluate the properties in accordance with stipulation VIII.C.2 of the Federal-Aid Highway PA and the Treatment Plan.

4. As currently proposed the Undertaking will have no adverse effect on NRHP eligible built environment properties. For any future stage of the project that will potentially affect NRHP listed or eligible built environment properties, Caltrans shall follow section C of this stipulation.

### **C. Assessment of Effects**

STA in consultation with District 04 shall assess the effects of each stage of the Undertaking on any properties listed, eligible, or considered eligible for the NRHP within the APE for that stage in accordance with Stipulation X of the Federal-Aid Highway PA and Caltrans policies and guidelines.

1. If District 04 determines that a stage of the Undertaking meets the conditions of Stipulation X.B.2.a of the Federal-Aid Highway PA, District 04 shall notify Caltrans and SHPO of a finding of No Adverse Effect with Standard Conditions in accordance with Stipulation X.B.2.b of the Federal-Aid Highway PA. Documentation, consistent with Caltrans guidance, supporting the finding shall be submitted with the notification.
2. If District 04 concludes that a stage of the Undertaking will have an effect on properties listed, eligible, or considered eligible for the NRHP, but the effect is not considered adverse, District 04 shall propose a finding of No Adverse Effect to Caltrans in accordance with Stipulation X.B.1.a of the Federal-Aid Highway PA. Following approval, Caltrans shall consult with SHPO regarding the finding, after which SHPO shall have 30 days to provide comment. If SHPO does not comment within 30 days of receipt of the documentation, Caltrans may proceed with the No Adverse Effect finding in accordance with Stipulation X.B.1.b of the Federal-Aid Highway PA.
3. If District 04 concludes that a stage of the Undertaking will have an adverse effect on properties listed, eligible or considered eligible for the NRHP, District 04 shall propose a finding of Adverse Effect to Caltrans in accordance with Stipulation X.C of the Federal-Aid Highway PA. Following approval, Caltrans shall consult with SHPO regarding the finding, after which SHPO shall have 30 days to provide comment. If SHPO does not comment within 30 days of receipt of documentation, Caltrans may assume the SHPO's concurrence with the finding in accordance with Stipulation X.C.2 of the Federal-Aid Highway PA.

## **III. TREATMENT OF HISTORIC PROPERTIES**

Caltrans shall, upon its decision to proceed with construction of a stage of the Undertaking, and prior to implementation of that stage, resolve adverse effects to historic properties within the APE for that stage of the Undertaking in accordance with 36 CFR § 800.6, as follows:

### **A. Archaeological Resources**

1. Caltrans may, as a result of consultation to resolve adverse effects for any stage of the Undertaking, conduct data recovery work on historic properties determined to be significant exclusively under Criterion D of the NRHP pursuant to Stipulation X.C.2 of the Federal-Aid Highway PA. STA, in consultation with District 04 and the Yocha Dehe Wintun Nation, shall prepare a Data Recovery Proposal (Proposal), to be included as an addendum to the Treatment Plan, detailing the treatment for historic properties specific to that stage.



Following Caltrans approval, Caltrans shall consult with SHPO regarding the Proposal, after which SHPO shall have 45 days to provide comment. This comment period is to run concurrently with that provided in Stipulation II.C.3 if the Proposal accompanies the finding of adverse affect. If SHPO does not comment within 45 days of receipt of the documentation, Caltrans may proceed with the implementation of the Proposal.

2. In order to avoid adverse effects to deposits that contribute to the NRHP eligibility of archaeological sites described in stipulation III.A.1, above, where data recovery is not prescribed, Caltrans will protect those contributing deposits from any potential effects during construction by establishment and effective enforcement of ESA(s). Provisions for the protection of the ESA(s) will be described, and the locations depicted, in information included in the final construction plans for that stage of the Undertaking. The ESA provisions will indicate that no work will take place within the ESA(s), either horizontally or to a depth that may impact the deposits, and that temporary fencing will be placed between the areas of impact and the location of the contributing deposits of the archaeological sites. Caltrans shall further ensure that a professional archaeologist will coordinate the installation of the fence. A Yocha Dehe Tribal Monitor will be invited to be present during installation of the fence. Caltrans shall be responsible for ensuring its integrity is maintained for the duration of construction activities in the vicinity of deposits that contribute to the NRHP eligibility of the archaeological sites.

#### **B. Built Environment Resources**

In the event that a stage of the Undertaking will result in an unavoidable Adverse Effect to built environment properties in accordance with stipulation II.C.3 above, Caltrans shall consult to resolve the adverse effect in accordance with stipulation XI.A of the Federal-Aid Highway PA and 36 CFR § 800.6(a) and 36 CFR § 800.6(b)(1). To support the consultation, STA shall prepare, for Caltrans review and approval, a Built Environment Treatment Plan (BETP) outlining an approach to resolve the adverse effect. Caltrans shall ensure that the agreed upon resolution is thereafter implemented.

#### **C. Treatment Plan Amendments**

Any PA party may propose amendments to the Treatment Plan. Such amendment will not require amendment of this PA. Disputes regarding amendments proposed hereunder shall be addressed through further consultation among the PA parties. Consultation regarding the proposed amendment shall extend for 30 days. If the dispute is resolved within this time frame, the PA parties shall proceed in accordance with the terms of that resolution. If the dispute is not resolved within this time frame, Caltrans shall render a final decision regarding the dispute and the PA parties shall proceed in accordance with the terms of that decision.

#### **D. Caltrans Authorization**

Caltrans shall not authorize the execution of any Undertaking activity, for any stage, that may affect (36 CFR § 800.16(i)) historic properties in the Undertaking's APE prior to the completion of the fieldwork and appropriate consultation stipulated in this PA and the Treatment Plan found in Attachment 1 of this PA.

### **IV. REPORTING REQUIREMENTS AND RELATED REVIEWS**

- A. For any XPI, Phase II or Phase III investigations, reporting will follow the guidance found in Caltrans Standard Environmental Reference and the Treatment Plan, which is included as Attachment 1 of this PA.
- B. Reporting for built environment studies will follow stipulations VIII.C.5 and stipulations IX-X of the Federal-Aid Highway PA, as appropriate. Mitigation measures developed through consultation conducted in accordance with stipulation III.B of this PA shall be reported as a result of such consultation.

## **V. NATIVE AMERICAN CONSULTATION**

The Yocha Dehe Wintun Nation and the Cortina Band of Indians have been consulted regarding the proposed undertaking and its effect on historic properties, will continue to be consulted, and will be afforded, should they so desire, the opportunity to participate in the implementation of the PA and of the Undertaking. Should any of the parties consulted with desire, individually, to participate as a PA party as herein set forth, Caltrans will make an effort to reach a consensus with each such party regarding the manner in which they may participate in the implementation of this PA and the Undertaking, and regarding any time frames or other matters that may govern the nature, scope, and frequency of such participation.

## **VI. TREATMENT OF HUMAN REMAINS OF NATIVE AMERICAN ORIGIN**

The PA parties agree that human remains and related items discovered during the implementation of the terms of this PA and of the Undertaking will be treated in accordance with the requirements of § 7050.5(b) of the California Health and Safety Code. If, pursuant to § 7050.5(c) of the California Health and Safety Code, the county coroner/medical examiner determines that the human remains are or may be of Native American origin, then the discovery shall be treated in accordance with the provisions of § 5097.98(a)-(d) of the California Public Resources Code.

## **VII. LATE DISCOVERIES AND UNANTICIPATED EFFECTS**

If Caltrans determines, after commencement of any stage of the Undertaking, that construction of that stage will affect a previously unidentified property that may be eligible for the National Register, or affect a known historic property in an unanticipated manner, Caltrans will address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(b)(3). Caltrans at its discretion may hereunder assume any discovered property to be eligible for the National Register in accordance with 36 CFR § 800.13(c).

## **VIII. ADMINISTRATIVE PROVISIONS**

### **A. Standards**

1. **Definitions.** The definitions provided at 36 CFR § 800.16 are applicable throughout this PA.
2. **Professional Qualifications.** All activities prescribed by stipulations I, II, III, IV, V, VI and VII of this PA shall be carried out under the authority of Caltrans by or under the direct supervision of a person or persons meeting at a minimum *Secretary of the Interior's Professional Qualification Standards* (48 FR 44738-39) (PQS) in appropriate disciplines. Nothing in this stipulation, however, may be interpreted to preclude Caltrans or any agent or contractor thereof from using the properly supervised services of persons who do not meet the PQS.



3. **Documentation Standards.** Written documentation of activities prescribed by stipulations II, III, IV, VI, and VII of this PA shall conform to the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740), as well as to applicable standards and guidelines established by the SHPO.
4. **Curation Standards.** Caltrans shall ensure that, to the extent permitted under § 5097.98 and § 5097.991 of the California Public Resources Code, the materials and records resulting from the activities prescribed by this PA are curated in accordance with 36 CFR § 79. Caltrans shall ensure that the views of the PA parties are taken into consideration when decisions are made about the final disposition of archaeological materials resulting from activities prescribed by this PA.

## **B. Confidentiality.**

The parties to this PA acknowledge that historic properties covered by this PA are subject to the provisions of § 304 of the NHPA and § 6254.10 of the California Government Code (Public Records Act), relating to the disclosure of archaeological site information and, having so acknowledged, will ensure that all actions and documentation prescribed by this PA are consistent with said sections.

## **C. Resolving Objections**

1. Should any party to this PA object to the manner in which the terms of this PA are implemented, to any action carried out or proposed with respect to implementation of the PA (other than the Undertaking itself), or to any documentation prepared in accordance with and subject to the terms of this PA, Caltrans shall immediately notify the other PA parties of those objections, and shall consult with the objecting party and with the other parties for no more than 14 days to resolve the objection. Caltrans shall reasonably determine when this consultation will commence. If the objection is resolved through such consultation, the action subject to dispute may proceed in accordance with the terms of that resolution. If, after initiating such consultation, Caltrans determines that the objection cannot be resolved through consultation, Caltrans shall forward all documentation relevant to the objection, including Caltrans' proposed response to the objection, to the ACHP, with the expectation that the ACHP will, within thirty (30) days after receipt of such documentation, do one of the following:
  - a. advise Caltrans that the ACHP concurs in Caltrans' proposed response to the objection, whereupon Caltrans will respond to the objection accordingly. The objection shall thereby be resolved; or
  - b. provide Caltrans with recommendations, which Caltrans will take into account in reaching a final decision regarding its response to the objection. The objection shall thereby be resolved; or
  - c. notify Caltrans that the objection will be referred for comment pursuant to 36 CFR § 800.7(c) and proceed to refer the objection and comment. Caltrans shall take the resulting comments into account in accordance with 36 CFR § 800.7(c)(4) and Section 110(1) of the NHPA. The objection shall thereby be resolved.
2. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, Caltrans may proceed to implement their proposed response. The objection shall thereby be resolved.

3. Caltrans shall take into account any of the ACHP's recommendations or comments provided in accordance with section C of this stipulation with reference only to the subject of the objection. Caltrans' responsibility to carry out all actions under this PA that are not the subjects of the objection shall remain unchanged.
4. At any time during implementation of the measures stipulated in this PA, should an objection pertaining to such implementation be raised by a member of the public, Caltrans notify the PA parties in writing of the objection and take the objection into consideration. Caltrans shall consult with the objecting party and, if the objecting party so requests, with the other PA parties, for no more than 15 days. Within 10 days following closure of the consultation period, Caltrans will render a decision regarding the objection and notify all consulting parties hereunder of its decision in writing. The objection will thereby be resolved. In reaching its decision, Caltrans will take into account any comments from the consulting parties regarding the objection, including the objecting party. Caltrans' decision regarding the resolution will be final.
5. Caltrans shall provide all PA parties, the ACHP when the ACHP has issued comments hereunder, and any parties that have objected pursuant to section C.4 of this stipulation, with a copy of its final written decision regarding any objection addressed pursuant to this stipulation.
6. Caltrans may authorize any action subject to objection under section C.4 of this stipulation to proceed after the objection has been resolved in accordance with the terms of section C.5, above.

#### **D. Amendments**

Any PA party may propose that this PA be amended, whereupon the PA parties will consult for no more than 30 days to consider such amendment. Caltrans may extend this consultation period. The amendment process shall comply with will 36 CFR §§ 800.6(c)(1) and 800.6(c)(7). This PA may be amended only upon written agreement of the signatory parties. If it is not amended, this PA may be terminated by any of the signatory parties in accordance with section E of this stipulation, below.

#### **E. Termination**

1. If this PA is not amended as provided for in section D of this stipulation, above, or if any signatory proposes termination of this PA for other reasons, the signatory party proposing termination shall, in writing, notify the other PA parties, explain the reasons for proposing termination, and consult with the other PA parties for at least 30 days to seek alternatives to termination. Such consultation shall not be required if Caltrans proposes termination because the Undertaking no longer meets the definition set forth in 36 CFR § 800.16(y).
2. Should such consultation result in an agreement on an alternative to termination, the signatory parties shall proceed in accordance with the terms of that agreement.
3. Should such consultation fail, the signatory party proposing termination may terminate this PA by promptly notifying the other PA parties in writing. Termination hereunder shall render this PA without further force or effect.



4. If this PA is terminated hereunder, and if Caltrans determines that the Undertaking will nonetheless proceed, then Caltrans shall either consult in accordance with 36 CFR § 800.6 to develop a new PA, or request the comments of the ACHP, pursuant to 36 CFR Part 800.

#### **F. Duration of the PA**

1. Unless terminated pursuant to section E. of this stipulation, or unless it is superseded by an amended PA, this PA will be in effect following execution by the signatory parties until Caltrans, in consultation with the other PA parties, determines that all of its stipulations have been satisfactorily fulfilled. This PA will terminate and have no further force or effect on the day that Caltrans notifies the other PA parties in writing of its determination that all stipulations of this PA have been satisfactorily fulfilled.
2. The terms of this PA shall be satisfactorily fulfilled within ten (10) years following the date of execution by the signatory parties. If Caltrans determines that this requirement cannot be met, the PA parties will consult to reconsider its terms. Reconsideration may include continuation of the PA as originally executed, amendment of the PA, or termination. In the event of termination, Caltrans will comply with section E of this stipulation if it determines that the Undertaking will proceed notwithstanding termination of this PA.
3. If the Undertaking has not been implemented within ten (10) years following execution of this PA by the signatory parties, this PA shall automatically terminate and have no further force or effect. Prior to such time, Caltrans may consult with the other consulting parties to reconsider the terms of the PA and extend its duration through amendment pursuant to section D of this stipulation. If not amended, Caltrans shall notify the other PA parties in writing and, if it chooses to continue with the Undertaking, shall reinstate review of the Undertaking in accordance with 36 CFR Part 800.

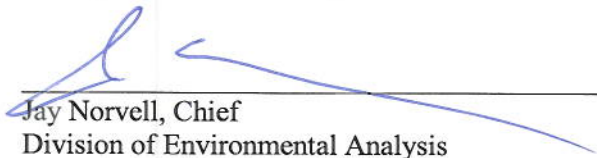
#### **G. Effective Date**

This PA will take effect on the date that it has been executed by Caltrans and the SHPO.


**EXECUTION** of this PA by Caltrans and the SHPO, its transmittal by Caltrans to the ACHP in accordance with 36 CFR §800.6(b)(1)(iv), and subsequent implementation of its terms, shall evidence, pursuant to 36 CFR§800.6(c), that this PA is an agreement with the ACHP for purposes of Section 110(1) of the NHPA, and shall further evidence that Caltrans has taken into account the effects of the Undertaking on historic properties and has afforded the ACHP an opportunity to comment on the Undertaking and its effects on historic properties.

**SIGNATORY PARTIES:**

**California Department of Transportation**

By  Date 11/3/11  
Jay Norvell, Chief  
Division of Environmental Analysis

**California State Historic Preservation Officer**

By  Date 11/7/11  
for Milford Wayne Donaldson, FAIA  
State Historic Preservation Officer



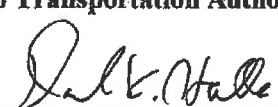
**CONCURRING PARTIES:**

**California Department of Transportation**

By:   
Bijan Sartipi, Director  
District 04, Oakland

Date: 7/20/12

**Solano Transportation Authority**

By:   
Daryl K. Halls, Executive Director

Date: 7/11/12

**Yocha Dehe Wintun Nation**

By: \_\_\_\_\_  
Marshall Mckay, Chairman

Date: \_\_\_\_\_



## Section 7 of the Federal Endangered Species Act





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

January 14, 2011

In response, refer to:  
2010/06180

James Richards, Deputy District Director  
Department of Transportation  
Caltrans District 4  
Office of Environmental Analysis  
111 Grand Avenue  
Oakland, California 94610

Dear Mr. Richards:

Thank you for your letter of December 8, 2010, requesting initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Effective July 1, 2007, the Federal Highway Administration assigned, and the California Department of Transportation (Caltrans) has assumed all responsibilities for consultation and approval on most highway projects in California. Therefore, Caltrans is now considered the Federal action agency for ESA consultations with NMFS for Federally funded projects. This letter also serves as consultation under the authority of, and in accordance with, the Essential Fish Habitat (EFH) provisions of the Magnuson Stevens Fishery Conservation and Management Act (MSA), and the provisions of the Fish and Wildlife Coordination Act of 1934 (FWCA), as amended. These consultations pertain to Caltrans' proposed Interstate-80/Interstate-680/State Route 12 Interchange Improvement Project in Solano County, California.

The Interstate-80/Interstate-680/State Route 12 (I-80/I-680/SR 12) Interchange Improvement Project covers several miles of roadway around the City of Fairfield in Solano County, California. The western boundary of the Project is the Red Top Road crossings of I-680, I-80, and SR 12; the eastern boundary of the Project is the Suisun Valley Road crossing on I-80 and the LedgeWood Creek road crossing on SR 12. Surface water in the action area includes Green Valley Creek and LedgeWood Creek. The purpose of the project is to improve the I-80/I-680/SR 12 interchange complex to meet traffic demands and alleviate cut-through traffic on local roads. The project consists of construction or realignment of the following interchanges: 1) I-80/I-680/SR 12 West; 2) I-680 and Red Top Road; 3) I-80 and Green Valley Road; 4) I-80/Red Top Road and Business Center Drive; and 5) and SR 12 West and Red Top Road. Construction will also involve widening of I-80 and a new lane on eastbound SR 12, which will require a new bridge and off-ramp over Green Valley Creek, and widening of the culvert over LedgeWood Creek. All proposed in-stream work will occur during the dry season (June 1 through October 15).





Green Valley Creek originates in Green Valley, northwest of Rockville Hills Regional Park, and flow south to Cordelia Slough which is a tributary of Grizzly Bay. At the existing I-80 and I-680/I-80 West Interchange overcrossing, Green Valley Creek flows in a concrete-lined, trapezoidal channel approximately 670 feet long and 70 feet wide. The proposed action will remove the existing I-80 West bridge and replace it with a single span structure measuring approximately 103 feet long and 133 feet wide. Additionally, a single span structure to carry the Green Valley Road off-ramp over the creek will replace the existing I-680/I-80 West interchange.

In-stream construction at Green Valley Creek is proposed to occur between June 1<sup>st</sup> and October 15<sup>th</sup>, over approximately four construction seasons. Construction at Green Valley Creek will occur within a 10-20 year time frame. The first phase will involve construction of the outside (northernmost) westbound lanes on I-80 while maintaining traffic flow on the existing structure. Demolition of the existing I-80 West bridge, and completion of the new I-80 West bridge and the new off-ramp structure will follow.

Piles for the new free-spanning structures will be located at the top of the creek bank and are anticipated to be 12-inch square piles driven to a depth of approximately 70 feet. Approximately 40 piles per abutment will be installed for the westbound I-80 bridge, and approximately 24 piles per abutment will be installed for the new off-ramp structure. Vibratory hammers will be used for pile driving to the maximum practicable extent. Pile driving will only occur during low precipitation periods (June 1 to October 15) and any work occurring before June 1 or after October 15 will be restricted to road or bridge surface only, with water quality control measures in place.

Ledgewood Creek originates in the Vaca Mountains, north of the Solano/Napa County line, and flows south to Paytonia Slough which is a tributary of Grizzly Bay. In the vicinity of the existing SR 12 overcrossing, Ledgewood Creek is confined to a levee-lined trapezoidal channel. Beneath the five-span bridge at SR 12, Ledgewood Creek is conveyed through concrete-lined box culverts. Within the action area, riparian and riverine cover is limited to areas downstream of these culverts. The culverts at SR 12 and Ledgewood Creek is proposed to be extended 15 feet to the south (downstream) to accommodate an additional lane on SR 12; this would permanently impact 15 linear feet of the existing earthen channel. Construction associated with the culvert is expected to last only one season from June 1 to October 15.

Dewatering of both Ledgewood Creek and Green Valley Creek will involve construction of the following in-channel features: 1) temporary cofferdams (made of gravel and fabric) constructed 20-50 feet beyond the limit of bridge/culvert widening; and a pipe diversion to facilitate dewatering of the channel and bypass creek flow; 2) cofferdams constructed utilizing the same methods to facilitate excavation of existing bridge/culvert footings; and 3) falsework placed within the banks and channel to support construction of the cast-in-place concrete box girder structures of the new bridges/culverts. No construction related material (including dewatering and bypass structures) will remain in the channel between October 15 and June 1. When construction is completed, falsework will be removed and any disturbed portions of the creek bed and bank temporarily affected during construction will be restored to pre-project conditions. Additionally, the channel under the new bridges at Green Valley Creek will be restored to an



earthen channel; and a concrete fish passage structure involving a low flow channel and possibly baffles will be constructed in the culvert at SR 12 and Ledgeewood Creek.

Standard best management practices (BMPs) for construction site and sediment and stormwater runoff control will be utilized on this project. Biofiltration swales and biostrips will be used when possible to control runoff. Vegetation will be trimmed rather than removed when possible. Temporarily disturbed riparian areas will be replanted with the native species prior to October 15 to minimize erosion and creek sedimentation, and revegetation will be monitored annually for 3 years.

### **Endangered Species Act**

In its December 8, 2010, letter Caltrans asked for concurrence with a finding that the project is not likely to adversely affect Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*). Reaches of Green Valley Creek and Ledgeewood Creek within the project area are not designated critical habitat for CCC steelhead. Available information indicates the following DPS may occur in the project area:

#### **Central California Coast steelhead Distinct Population Segment (*O. mykiss*) DPS Threatened (January 5, 2006; 71 FR 834).**

The life history of steelhead is summarized in Busby *et al.* (1996). Steelhead typically immigrate to tributaries of San Francisco Bay between November and April, peaking in January and February (Fukushima and Lesh 1998). Adult CCC steelhead are generally not present in streams between May and October; warm summer water temperature and poor habitat quality within the project area further reduce the likelihood of adult steelhead presence during summer months. Juvenile steelhead emigrate episodically from natal streams during fall, winter, and spring high flows. Emigrating CCC steelhead use Green Valley Creek and portions of the San Francisco Bay for rearing and as a migration corridor to the ocean. In summer months, reaches of Green Valley Creek and Ledgeewood Creek within the action area are unsuitable for salmonid rearing due to poor water and habitat quality. Although data regarding the emigration timing of steelhead smolts from Green Valley Creek and Ledgeewood Creek is lacking, steelhead from other streams draining to San Francisco Bay typically emigrate from March through June (Fukushima and Lesh 1998). NMFS assumes that steelhead from Green Valley Creek and Ledgeewood Creek emigrate at the same time and smolting steelhead should be absent during the in-channel construction window of June 1 through October 15.

*O. mykiss* have been collected in Green Valley Creek from the 1950s to the present, and unpublished data indicates *O. mykiss* were collected 1 mile upstream of I-80 in January 1997 (Leidy *et al.* 2005). Therefore, it is likely that steelhead spawning and rearing occur above the I-80 crossing of Green Valley Creek. Beneath I-80 and the I-680/I-80 West interchange Green Valley Creek passes through a 670 foot long, concrete-lined trapezoidal channel and primarily provides a migration corridor for salmonids at this location. This crossing contains an engineered low-flow channel and concrete weirs to enhance fish passage, but lacks significant riparian canopy and natural instream cover due to the concrete channel invert.



Caltrans proposes to restore approximately 300 feet of Green Valley Creek to natural earthen channel and in the process enhance habitat at the site. Proposed actions will not inhibit fish passage at the site, and could provide additional rearing habitat for juvenile salmonids. Salmonids are not likely to be present during summer in-channel construction and pile driving work windows. Construction activities that are proposed to occur when migratory steelhead are likely to be present will be restricted to road or bridge surfaces only, with water quality control measures in place. Therefore, CCC steelhead are not likely to be adversely affected by the proposed actions at Green Valley Creek.

In the vicinity of the SR 12 crossing, levees line both banks of Ledgeewood Creek and the channel has a trapezoidal cross section. SR 12 crosses Ledgeewood Creek over a five-span bridge. At low flows Ledgeewood Creek passes through the second culvert from the east bank, which forms a V-shaped channel to maximize water depths at low flows. No observations of steelhead have been reported in Ledgeewood Creek. The Ledgeewood Creek drainage, however, is adjacent to the Suisun Creek Watershed which is known to support steelhead populations. Furthermore, Chinook salmon have been observed spawning in Ledgeewood Creek above the project site, indicating that Ledgeewood Creek supports migratory habitat for anadromous salmonids (NMFS 2011).

Proposed activities at Ledgeewood Creek involve widening the SR 12 crossing by 15 linear feet to the south. This will permanently impact 15 linear feet of the existing earthen channel by converting it to a concrete invert slab. This action will exacerbate the existing shallow water depth issues at low flows; and concrete low-flow walls and potentially baffles will be constructed to enhance low-flow fish passage of the culvert. Ledgeewood Creek is not designated critical habitat for CCC steelhead, and there is no confirmed documentation of *O. mykiss* within the drainage. The proximity of Ledgeewood Creek to the Suisun Creek watershed, however, indicates migratory steelhead could be present during periods of higher flows. All construction activities associated with the culvert will occur over one dry season, from June 1 to October 15. Therefore, the presence of CCC steelhead is unlikely during proposed construction activities, and CCC steelhead are not likely to be adversely affected by the proposed actions at Ledgeewood Creek. Proposed passage improvements at Ledgeewood Creek will address the addition of 15 linear feet of hardened creek bottom, and potentially make higher quality habitat above the culvert more accessible to CCC steelhead.

Based on the best available information, NMFS concurs with Caltran's determination that threatened CCC steelhead are not likely to be adversely affected by the I-80/I-680/SR 12 Interchange Improvement Project. This concludes informal consultation in accordance with 50 CFR 402.13(a) for the proposed I-80/I-680/SR 12 Interchange Improvement Project in Solano County, California. However, further consultation may be required if: (1) new information becomes available indicating that listed species or critical habitat may be affected by the project in a manner or to an extent not previously considered; (2) current project plans change in a manner that causes an effect to listed species or critical habitat in a manner not previously considered; or (3) a new species is listed or critical habitat designated that may be affected by the action.

### **Magnuson-Stevens Fishery Conservation and Management Act**

The project area is located within an area identified as EFH for Central Valley fall/late fall-run Chinook salmon, managed with the Pacific Coast Salmon Fishery Management Plan under the MSA. As discussed in the above ESA section, no in-water construction will take place when Chinook salmon are likely to be present. However, adverse effects to EFH could occur from increased sedimentation and turbidity following construction activities. While these impacts are considered minor and temporary, NMFS has made the determination that the proposed action would adversely affect EFH for this species. However, the proposed action contains adequate measures to avoid, minimize, mitigate, or otherwise offset any adverse effects to EFH. Therefore, NMFS has no additional EFH Conservation Recommendations to provide.

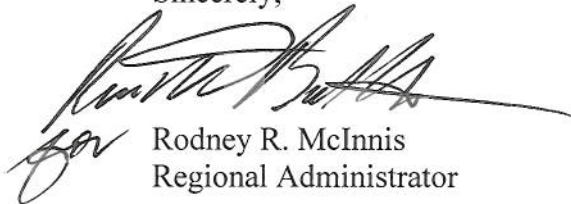
This concludes EFH consultation for Caltrans' proposed I-80/I-680/SR 12 Interchange Improvement Project, Solano County, California. Pursuant to 50 CFR 600.920(l) of the EFH regulations, Caltrans must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH Conservation Recommendations.

### **Fish and Wildlife Coordination Act**

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development [16 U.S.C. 661]. The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage [16 U.S.C 662(a)]. Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. With implementation of the previously-referenced EFH conservation recommendations, NMFS has no further comments to provide.

Please contact Mr. Joseph Heublein at (707) 575-1251, or via e-mail at [joe.heublein@noaa.gov](mailto:joe.heublein@noaa.gov) should you have any questions.

Sincerely,



Rodney R. McInnis  
Regional Administrator

cc: Chris Yates, NMFS, Long Beach  
Bob Hoffman, NMFS, Long Beach  
Bryant Chesney, NMFS, Long Beach  
Ahmad Hashemi, Caltrans District 4  
Copy to File ARN: 151422-SWR-2010-SR00524



## Literature Cited

- Busby, P.J., T.C. Wainwright, G.J. Bryant, L. Lierheimer, R.S. Waples, F.W. Waknitz and I.V. Lagomarsino. 1996. Status Review of West Coast Steelhead from Washington, Idaho, Oregon, and California. United States Department of Commerce, National Oceanic and Atmospheric Administration Technical Memorandum NMFS-NWFSC-27. 261 pages.
- Fukushima L., and E.W. Lesh. 1998. Adult and juvenile anadromous salmonid migration timing in California streams. California Department of Fish and Game 84(3):133-145.
- Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical Distribution and Current Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California. Oakland, CA: Center of Ecosystem Management and Restoration.
- National Marine Fisheries Service (NMFS). Central Valley Chinook Salmon, Current Stream Habitat Distribution Table. <http://swr.nmfs.noaa.gov/hcd/dist2.htm>. Accessed January, 2011.



US Fish & Wildlife Service  
Pacific Southwest Region  
2800 Cottage Way, Room W-2606  
Sacramento, CA 95825-1846



California Department of  
Transportation  
Division of Environmental Analysis  
1120 N. Street, MS 27  
Sacramento, CA 95814

April 10, 2012

Susan Moore  
Field Supervisor  
Sacramento Fish and Wildlife Office  
2800 Cottage Way, Suite W-2605  
Sacramento, CA 95825-1846

Bijan Sartipi  
District 4 Director  
California Department of Transportation  
111 Grand Avenue  
Oakland, CA 94612

This memo documents the final resolution of the automatic elevation of the Interstate 680/80, State Route 12 Caltrans Section 7 Consultation with the U.S. Fish and Wildlife Service (USFWS). The automatic elevation process follows the policy and procedures outlined in the March 18, 2011 memo describing the Caltrans/USFWS automatic elevation<sup>1</sup> and October 2006 Joint Memorandum for the Dispute Resolution Process<sup>2</sup>.

This particular elevation process has been complex and has required several meetings, input from staff at Caltrans District 4 (D4) and the USFWS Sacramento Fish and Wildlife Service Office (SFWO), and has resulted in major revisions to the Draft Biological Opinion.

The attached Biological Opinion (BO) incorporates the results of this resolution process. This BO shall be signed by the SFWO and sent to D4 no later than noon, Monday April 16, 2012.

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<sup>1</sup> Tracking Federal Endangered Species Act Consultations and Automatic Elevation Procedures  
<http://www.dot.ca.gov/ser/downloads/bio/STEVETtracking.pdf>

<sup>2</sup> Joint Memorandum for the Dispute Resolution Process  
[http://www.dot.ca.gov/ser/downloads/guidance/Dispute\\_Resolution\\_Process.pdf](http://www.dot.ca.gov/ser/downloads/guidance/Dispute_Resolution_Process.pdf)

Finally, we want to thank you and your staff for participating in the automatic elevation process. We believe that the elevation process, including the auto-elevation process will help us find solutions to on-going issues and result in positive partnerships, transparency, and timeliness of the consultation process.

If you have any questions please contact Amy Bailey at (916) 651-8166 or Jay Norvell at (916) 653-7136 at Caltrans or Roberta Gerson (916) 978-6191 at the RO.

Sincerely,



MICHAEL FRIS  
Assistant Regional Director  
Ecological Services  
U.S. Fish and Wildlife Service, Region 8 Office

Date: 4/10/12

For   
JAY NORVELL

Chief  
Division of Environmental Analysis  
California Department of Transportation

Date: 4/10/12

Attachments: 1) Resolution Memo  
2) Biological Opinion for Signature

**Interstate 80/680/12 Auto Elevation Resolution: EA 04-0A5300/0400000150, Service File: 81420-2009-F-0857**

This particular elevation process has been complex and has required several meetings, input from staff at Caltrans District 4 (D4) and the USFWS Sacramento Fish and Wildlife Service Office (SFWO), and has resulted in major revisions to the Draft Biological Opinion. Much of the resolution process was spent on trying to bring perspectives closer together, clarifying the science, understanding that there are unknowns associated with access to properties, and providing forums for communication of these perspectives. Note that any decisions made during this elevation process utilized best available science but are case-specific to this project and not to be assumed as precedent-setting for future projects.

The attached Biological Opinion (BO) incorporates the results of this resolution process. The BO shall be signed by the SFWO and sent to D4 no later than noon, Monday April 16, 2012.

The following notation outlines the process and decisions that were made by Caltrans Headquarters Division of Environmental Analysis (HQDEA) and USFWS Region Office (RO) (Elevation Panel) for this dispute resolution:

- On March 2, 2012 D4 submitted project description revisions for the Biological Assessment (BA) related to the vernal pool fairy shrimp and tadpole shrimp and frog to reflect : 1) incorporation of the conservation measures and analysis related to vernal pool (VP) species and the California red-legged frog (frog) as outlined in their February 17, 2012 memo, 2) A statement identifying when pre-construction surveys will be completed to clarify and confirm the amount of impacts/effects to the frog, and 3) The intent to identify a monitoring approach and plan, which will be submitted to and approved by the Service prior to construction.
- Information regarding the Callippe silverspot butterfly (butterfly) was requested by the elevation panel and reviewed on February 22, 2012.
  - The panel concluded that the available data supported that the butterfly could be reasonably inferred to be present within the general area of the proposed Business Center Drive and the Red Top Road Extensions. Therefore, Caltrans needed to enter formal consultation on the butterfly. Caltrans and USFWS needed to evaluate avoidance, minimization, and conservation measures, and these needed to be included in the Biological Assessment (BA) and incorporated into the BO.
  - The elevation panel scheduled two facilitated meetings with project-level staff from SFWO and D4 to collect additional information on avoidance, minimization and conservation measures and to understand perspectives and points of disagreement regarding project impacts.
    - The first meeting focused on clarifying and refining impact acreage mapping and identifying ways of avoiding or minimizing the impacts to the butterfly and its habitat. Also, D4 and SFWO discussed temporary and permanent impacts and expectations associated with avoidance, minimization and conservation measures related to each impact. D4

presented refined GIS mapping and all reviewed it to better understand the project impacts.

- Between the first and second meeting, the elevation panel tasked D4 and SFWO with revising the conservation measures, terms and conditions of the Draft BO as appropriate, and refining impact area mapping based on the first facilitated meeting. This action was not fully achieved by the parties; however, they did make partial progress on revisions and they did provide some information to the elevation team for further consideration. Due to this incomplete resolution, the elevation panel was unable to review a complete package of agreements and disagreements between D4 and SFWO. As a result, the second facilitated meeting that had been scheduled to finalize the resolution was modified to allow additional discussion and clarification between the elevation panel, SFWO and D4. The SFWO and D4 were again tasked with revising the Draft BO and the elevation panel developed a schedule for edits and opportunities for reviews and comments on any outstanding disagreements.
- The elevation panel met to go over each section of the revised Draft BO on March 23, 2012. Jay Norvell and Mike Fris discussed the proposed revisions to the BO were made, based on those discussions. Specific areas of resolution, discussion and associated rationale for decisions made included:
  - The elevation panel agreed that the ratios for preservation and restoration ratios for Vernal Pool species are to be based on the premise that effects to low value conservation areas will be compensated in medium to high value areas.
  - Based on information and rationale provided to the elevation panel, we determined appropriate on-site conservation measures and appropriate off-site preservation needs.
  - The elevation panel clarified that compensation will coincide with the phasing of construction packages presented in the BA. Implementation is defined as including a) identification of land to be restored or enhanced, b) associated agreements to fund restoration or enhancement activities, and c) a restoration plan and schedule approved by the Service.
  - The elevation panel modified the language associated with the Solano HCP planning throughout the document to indicate a preference for these locations rather than a requirement.
  - The panel agreed that compensation acreage for permanent impacts to the butterfly can be in the form of preservation, restoration or enhancement. Compensation for permanent impacts to the frog can be in the form of off-site preservation only. Compensation implemented within Service-approved areas that serve as appropriate upland frog habitat and butterfly habitat may be overlaid on common acreage (commonly called



“stacking”). Caltrans will receive conservation credit for the area from the Service for both species if compensation is done in this manner.

- The panel agreed that the extent of habitat loss and reduced habitat connectivity caused by the new Business Center Drive extension includes loss of and fragmentation of designated critical habitat and warrants off-site habitat preservation for the frog.
- The panel modified the Restoration Monitoring Plan to address concerns related to timing and costs associated with monitoring.
- The panel notes the need for an agreement with the entity that will be in charge of operations and maintenance of Business Center Drive in order to convey the requirements of this formal consultation should those areas be used as mitigation.
- The panel included routine maintenance considerations in the project description. Mitigation ratios to offset temporary impacts to habitat were defined for areas both within areas that would be maintained and areas that would not be maintained. Restrictions associated with routine maintenance are described in the BO as it relates to each species.

The size and technical complexities associated with this project have made this resolution process difficult. The different perspectives and points of view have resulted in the need for elevation. HQDEA and RO have attempted to arrive at the best solution that ensured conservation of the frog, butterfly, and vernal pool crustaceans, and enabled project planning to proceed. This agreement shouldn't be seen as a guideline for future projects as it is context-dependent and is a result of the information provided in this resolution process. It is fully anticipated that reinitiation will be needed due to the complexity and lengthy timeline associated with the construction of this action. We expect all parties to work collaboratively and expeditiously in these instances.

Please note: Current regulation and policy provided adequate guidance to resolve these elevations therefore no policy revision or precedential decisions were required.





## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846



In Reply Refer To:  
81420-2009-F-0857- 7

April 16, 2012

Ms. Moujan Mostaghimi  
California Department Transportation  
Environmental Division, MS 8E  
111 Grand Avenue  
Oakland, California 94612

Subject: Biological Opinion on the Effects of the Proposed Interstate 80/Interstate 680/State Route 12 Interchange Phase I Project, Solano County, California (EA 0A5300)

Dear Ms. Mostaghimi:

This is in response to your April 20, 2011, request for consultation with the U.S. Fish and Wildlife Service (Service) on the proposed Interstate 80 (I-80)/Interstate 680 (I-680) /State Route 12 (SR 12) Interchange Phase I Project in Solano County, California. At issue are the effects of the proposed action on the endangered showy Indian clover (*Trifolium amoenum*), endangered Contra Costa goldfields (*Lasthenia conjugans*) and its critical habitat, endangered vernal pool tadpole shrimp (*Lepidurus packardii*), threatened vernal pool fairy shrimp (*Branchinecta lynchi*), endangered callippe silverspot butterfly (*Speyeria callippe callippe*), threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), threatened Central California Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*), the threatened California red-legged frog (*Rana draytonii*) and its critical habitat, and the endangered salt marsh harvest mouse (*Reithrodontomys raviventris*).

The Service concurs with the California Department of Transportation's (Caltrans) determination that the proposed project may affect, but is not likely to adversely affect the showy Indian clover, Contra Costa goldfields, and the Central California Distinct Population Segment of the California tiger salamander.

Caltrans has not completed protocol-level surveys for showy Indian clover in the entire action area due to access problems. Due to its extreme rarity we concur that the proposed project may affect, but is not likely to adversely affect this listed plant. Caltrans has committed to conducting Service protocol-level plant surveys of the previously inaccessible parcels on the Mangels' property north of SR 12 West (SR 12W) for showy Indian clover prior to the initial groundbreaking for Construction Package 3. Caltrans will reinstate consultation pursuant to section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1531 *et seq.*)(Act) if



the listed plant is found, with the understanding that the presence of any additional listed species could lead to additional conservation measures that will be determined in conjunction with the Service. In the case of reinitiation, Caltrans' course of action with this species could lead to project delays, project redesign, or other significant effects on the project.

Caltrans has minimized potential effects such that it will not adversely affect the Contra Costa goldfields, Central California Distinct Population Segment of the California tiger salamander, and salt marsh harvest mouse. This determination was based upon: (1) the proposed retaining wall along the south shoulder of SR 12 East (SR 12E) between Ledgewood Creek and approximately 300 feet east of Pennsylvania Avenue and (2) information provided in the April 2011 Biological Assessment (BA) stating that the proposed construction activities and project design would not adversely affect the hydrology of the Gentry Suisun wetlands. The adjacent Gentry Suisun wetlands are occupied by Contra Costa goldfields and this lowland area is designated critical habitat for the species. The area provides potential habitat for the Central California Distinct Population Segment of the California tiger salamander and sufficient surveys have not been conducted to discount species presence. There are records of the salt marsh harvest mouse from within the pickleweed habitat in the Gentry Suisun wetlands (CDFG 2011a, 2011b). Along with *Proposed Conservation Measure 23*, the proposed retaining wall will avoid intrusion of proposed road widening into the low-lying wetland and will be of sufficient height to prevent salamanders that may inhabit the area from entering the SR 12E roadway.

In their April 20, 2011, letter, Caltrans requested formal consultation on the valley elderberry longhorn beetle and the California red-legged frog. Caltrans determined the project may affect, but is unlikely to adversely affect the Contra Costa goldfields, vernal pool tadpole shrimp, vernal pool fairy shrimp, and callippe silverspot butterfly. Pursuant to 50 CFR 402.13(d), we do not concur with the determination by Caltrans on the vernal pool fairy shrimp, vernal pool tadpole shrimp, and callippe silverspot butterfly. During the technical assistance phase, the Service informed Caltrans and Solano Transit Authority (STA) that it is our biological opinion that the project may affect and is likely to adversely affect the vernal pool fairy shrimp, vernal pool tadpole shrimp, and callippe silverspot butterfly. This adverse effects determination was reflected in the DEIR/EIR and was not challenged by Caltrans or STA during the technical assistance phase, prior to issuance of the April 2011 BA. The Service repeated the biological reasoning for our determinations in our June 30, 2011 30-Day Letter and subsequent meetings with Caltrans and STA after Caltrans issued contrary effects determinations in their April 2011 BA. The Service disagreed with the biological rationale provided by Caltrans to support their not likely to adversely affect determinations for the vernal pool fairy shrimp, vernal pool tadpole shrimp, and callippe silverspot butterfly in their April 2011 BA, their August 17, 2011 response to the 30-day letter, and in meetings with the Service subsequent to the issuance of the April 2011 BA. Therefore, we are issuing this biological opinion on the adverse effects of your project.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users legislation (23 U.S.C. § 327) allows the Secretary of the U.S. Department of Transportation acting through the Federal Highway Administration (FHWA) to establish a Surface Transportation Project Delivery Pilot Program, whereby a State may assume the FHWA responsibilities under the National Environmental Policy Act (NEPA) for environmental review,



responsibilities under the National Environmental Policy Act (NEPA) for environmental review, agency consultation and other actions pertaining to the review or approval of a specific project. Caltrans assumed these responsibilities for the FHWA on July 1, 2007 through a Memorandum of Understanding within the State of California

([http://www.dot.ca.gov/ser/downloads/MOUs/nepa\\_delegation/sec6005mou.pdf](http://www.dot.ca.gov/ser/downloads/MOUs/nepa_delegation/sec6005mou.pdf)) and are exercising this authority as the Federal nexus for section 7 consultation on this project.

This biological opinion is based on: (1) the April 2011 BA, (2) the September 15, 2011 meeting with Caltrans and STA, (3) site visits and meetings during the technical assistance phase of the consultation; (4) discussions with Sue Wickham of the Solano Land Trust (SLT) regarding listed species in nearby SLT holdings; (5) miscellaneous correspondence and electronic mail (e-mail) messages between the Service and Caltrans; (6) results from the joint resolution process; and (7) other information available to the Service.

### **Consultation History**

|                   |   |
|-------------------|---|
| March 26, 2007    | The Service received meeting notes from a March 15, 2007, NEPA/404 Integration Memorandum of Understanding checkpoint meeting. The Service did not attend the meeting.  |
| March 10, 2009    | The Service received a California red-legged frog habitat assessment for the project from STA's consultant.   |
| May 29, 2009      | The Service received meeting notes for a February 10, 2009, presentation of the alternatives for inclusion in the Draft Environmental Impact Statement (EIS) for the project and the criteria for the selection of alternatives from Caltrans. The Service did not attend this meeting.   |
| November 19, 2009 | The Service met with Caltrans and STA's consultant to discuss future consultation on the project. The expectations for the BA and the need to incorporate wildlife passage into the project design were discussed. The Service was informed that the first project phase was expected to begin in 2012 and later phases may not start for 30 years or more. Caltrans and STA stated that each project phase had independent utility and Caltrans planned to initiate separate consultation on Phase 1. Their current EIS was limited to Phase 1 but the Environmental Impact Report (EIR) included Phase 1 and 2. |
| June 28, 2010     | The Service attended a meeting with Caltrans and STA to discuss the consultation process and a revised project description.   |
| July 15, 2010     | The Service provided technical assistance via an e-mail message to STA's consultant in response to the March 2009 California red-legged frog habitat assessment.  |



- July 19, 2010      The Service visited Solano Land Trust land holdings with STA's consultant to discuss needed funding to complete and perform California red-legged frog-associated restoration and habitat management projects. STA was exploring compensation opportunities to minimize the effects of the proposed project on the listed frog. The Service emphasized that preservation and management of red-legged frog breeding and upland habitat adjacent to the proposed Business Center Drive Extension is the preferred option for minimizing the projects' adverse effects on the frog. A conservation easement on this land would preserve the proposed road undercrossing connections between a primary breeding pond and the remainder of the SOL-2 California red-legged frog critical habitat unit.
- July 20, 2010      The Service received Wildlife and Fish addendums for the DEIR/EIS from Caltrans for review.
- August 13, 2010      The Service received Volumes 1 and 2 of the DEIR/EIS from Caltrans. Although a final alternative has not been selected, Caltrans decided to pursue section 7 consultation on what is identified as Alternative C Phase 1 in the DEIR/EIS. Caltrans included the Solano County Draft Habitat Conservation Plan (HCP) (SCWA 2009) in the *Consistency with State, Regional, and Local Plans and Programs*, Section 3.1.1.2. The DEIR/EIS acknowledged the draft Solano HCP as establishing a framework for complying with State and Federal endangered species regulations. According to the DEIR/EIS, all the proposed project alternatives would result in impacts to callippe silverspot butterfly, vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, California red-legged frog and their habitat. The document stated that Alternative C, Phase 1 had the potential to destroy or disturb callippe silverspot butterfly or its habitat. The DEIR/EIS also stated that Alternative C Phase 1 would result in impacts to 1 71 acres (1.45 acres direct impacts + 0.26 acre indirect impacts) of vernal pool fairy shrimp/vernal pool tadpole shrimp habitat. In the DEIR/EIS, Caltrans committed to compensating for direct effects to vernal pool fairy shrimp and vernal pool tadpole shrimp at 3:1 and at a minimum of 1:1 for indirect effects. The DEIR/EIS stated that the actual ratios would be determined through consultation with the Service and that credits would be purchased through a Service-approved conservation bank. Although the analysis was not included in the April 2011 BA, the DEIR/EIS acknowledged that the proposed Business Center Drive Extension would reduce dispersal opportunities within the California red-legged frog SOL-2 critical habitat unit. The DEIR/EIS concluded that this reduction in dispersal could result in substantial frog mortality. The DEIR/EIS stated that the effects to the California red-legged frog would be compensated by habitat enhancement or contribution to a California red-legged frog conservation bank. In the *Growth-Inducing Impacts* section of the DEIR/EIS, Caltrans concluded that the proposed project would accommodate growth and that it would indirectly



- lead to development and intensification of land uses by improving access and roadway capacity.
- October 18, 2010 The Service issued a DEIR comment letter (Service File #81420-2009-TA-0857-1) to Caltrans.
- November 4, 2010 The Service met with STA and their consultant to discuss our DEIR/EIS comments relevant to the consultation. We explained the need for adequate passage to allow listed species and wildlife to safely cross roads, wildlife passage structures and directional fencing designs, construction scheduling, conservation measures, effects determinations on Contra Costa goldfields critical habitat, and the California tiger salamander habitat assessment.
- November 10, 2010 The Service sent STA's consultant comments regarding their draft of the November 4, 2010, meeting notes. The Service recommended that the two large crossings on the Business Center Drive Extension be spanned structures rather than culverts and that the western crossing (the third undercrossing on the Business Center Drive Extension) be at least 78 inches wide with a natural bottom. The Service clarified that the use of vegetation would not be an effective alternative to fencing to direct California red-legged frogs to safe undercrossings or exclude them from the road.
- November 18, 2010 The Service visited the proposed project site with Caltrans and STA's consultant to discuss the Business Center Drive Extension and the Contra Costa goldfields critical habitat, potential branchiopod habitat, and potential California tiger salamander habitat in the Gentry Suisun wetland area.
- November 29, 2010 The Service attended a NEPA/Section 404 Integration Process checkpoint meeting. The Service recommended that the planned relocation of businesses displaced by the project should be covered in the section 7 consultation because the relocations would not occur if not for the proposed project. Caltrans and STA informed the Service that a BA would be provided for the project within a week of the meeting.
- April 21, 2011 The Service received a digital and hard copy of an April 2011 BA from Caltrans with a letter requesting formal consultation for the California red-legged frog and valley elderberry longhorn beetle, and informal consultation on Contra Costa goldfields, vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, and the Central California Distinct Population Segment of the California tiger salamander.
- May 24, 2011 The Service received a letter from Caltrans stating that the Service was beyond the 30-day review period for the BA. However, the BA that had been provided to us by Caltrans was incomplete and it did not contain all



- of the information necessary to initiate formal consultation pursuant to 50 CFR 402.14(c).
- June 30, 2011 The Service issued a 30-day letter (Service File #81420-2009-0857-2) to Caltrans in response to the April 2011 BA.
- August 19, 2011 The Service received Caltrans' August 17, 2011 response to the Service's June 30, 2011 30-day letter. In the letter, Caltrans requested the issuance of a draft biological opinion.
- August 26, 2011 Caltrans notified the Service via an e-mail message that they were entering the formal elevation process to resolve consultation conflicts. This is a procedure both agencies have to agree to in order to resolve impasses on projects.
- September 15, 2011 The Service met with Caltrans and STA to discuss Caltrans' August 19, 2011, response to the June 30, 2011, 30-day letter. The issues and requests for adequate project and species information were not resolved during the meeting. Caltrans asserts that under section 7 they do not recognize in-perpetuity preservation of habitat as a means to minimize the project's effects on listed species. The Service explained the biological reasons why the vernal pool fairy shrimp, vernal pool tadpole shrimp, and callippe silverspot butterfly are likely to be affected by the proposed project. Caltrans and STA stated they were reluctant to seek take coverage for these species because of their concerns of the costs associated with conservation measures for these species. Caltrans and STA requested a list of conservation measures that would be appropriate to minimize the adverse effects on these listed animals. Caltrans requested that the Service issue a biological opinion for the project without authorization for incidental take for these three species with the acknowledgement they would accept the risk of violating the prohibitions of section 9.
- October 7, 2011 The Service Caltrans Liaison preparing the draft biological opinion was instructed to stop work on the project while Caltrans considered approval to provide additional funding to complete consultation.
- November 3, 2011 In response to a request made during the September 15, 2011 meeting, the Service sent a written list of recommended conservation measures to minimize the proposed project's effects on listed species to Caltrans and STA (Service File #81420-2009-F-0857-3).
- November 17, 2011 The Service received Caltrans' November 15, 2011 letter response to the Service's November 3, 2011 letter via e-mail. Caltrans declined to change their determination and request formal consultation for the vernal pool fairy shrimp, vernal pool tadpole shrimp, and callippe silverspot butterfly. However, they provided no biological explanation for their determination.

Caltrans also declined adoption of the appropriate conservation measures listed in the Service's November 3, 2011 letter to minimize effects to the vernal pool fairy shrimp, vernal pool tadpole shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog.

November 30, 2011 The Service Caltrans Liaison received approval from Caltrans to resume work on the consultation.

December 1, 2011 The Service attended a NEPA/Section 404 checkpoint meeting. Caltrans and STA discussed the project alternatives and avoidance and minimization measures with a collection of State and Federal regulatory agencies. A final project alternative had not been selected. Caltrans is still in the process of finalizing a Least Environmentally Damaging Practicable Alternative determination and approval of a Conceptual Mitigation Plan.

December 15, 2011- April 11, 2012 Caltrans and the Service entered into and completed the joint dispute resolution elevation process to resolve outstanding issues on the consultation

## **BIOLOGICAL OPINION**

### **Description of the Proposed Action**

The following project description was provided by Caltrans with minor modifications for reasons of clarity and accuracy provided by the Service.

Caltrans' full-build project involves comprehensive transportation improvements to the I- 80/ I-680 /SR 12 interchange complex intended to meet the future traffic demand over a 20-year planning horizon. The full-build includes the widening of I-680 and I-80 and the relocation, upgrade, and expansion of the I-80 westbound truck scales. The full scope of these improvements is not currently funded under the Metropolitan Transportation Commission's Regional Transportation Plan, 2035. Consequently, a fundable first phase of the full-build project has been developed (referred to as Phase 1). Phase 1 is the subject of evaluation under NEPA and the action for which a record of decision will be issued. STA has provided rationale for why Phase 1 has independent utility and therefore is the proposed action for this section 7 consultation.

### *General Scope of Work*

The proposed Phase 1 project is comprised of the following components:

1. Improvements to the I-80/I-680/SR 12W) interchange;
2. Realignment of I-680;



3. A new interchange at I-680 and Red Top Road;
4. A new road connecting the I-80/Red Top Road interchange to Business Center Drive (Business Center Drive Extension);
5. A new interchange at SR 12W and the new Red Top Road alignment;
6. A modified interchange at I-80 and Green Valley Road;
7. New I-80 bridges over Green Valley Creek;
8. Widening I-80;
9. A new lane on eastbound SR 12E; and
10. Widening of the SR 12E bridge over Ledgewood Creek.

#### *Construction Schedule and Funding*

The proposed project will be constructed in a series of seven discrete Construction Packages over an eight-year period, as funding becomes available. A summary of the anticipated construction packages, associated activities, and their sequencing is shown in Table 1.

Table 1. Construction Packages and Scheduling

| Construction Package Number | Main Construction Elements   | Scheduling  |
|-----------------------------|--|---|
| 1                           | <ol style="list-style-type: none"> <li>1. Construct the westbound I-80 to westbound SR 12W (Jameson Canyon) Connector.</li> <li>2. Widen westbound I-80 between the existing I-80/I-680 separation and SR 12W.</li> <li>3. Reconstruct the west half of the I-80 Green Valley Road interchange.</li> </ol>   | Start in 2013 with approximate two-year duration. |
| 2                           | <ol style="list-style-type: none"> <li>1. Construct the I-680/Red Top Road interchange.</li> <li>2. Realign Lopes Road and Fermi Road.</li> <li>3. Realign Ramsey Road around the proposed I-680/Red Top Road interchange.</li> </ol>  | Start in 2014 with approximate 1.5-year duration. |
| 3                           | <ol style="list-style-type: none"> <li>1. Construct the westbound I-80 to southbound I-680 connector.</li> <li>2. Widen westbound I-80 between the I-80/Suisun Valley Road and the I-80/ Green Valley Road interchanges.</li> <li>3. Reconstruct the westbound I-80 bridge over Green Valley Creek.</li> <li>4. Construct a new westbound on-ramp from I-80 at Suisun Valley Road.</li> <li>5. Construct a new westbound off-ramp from I-80 to Green Valley Road.</li> <li>6. Construct new bridge over Green Valley Creek carrying westbound off-ramp to Green Valley Road.</li> <li>7. Remove the existing I-80/I-680 connector bridges over I-80 and Green Valley Creek.</li> <li>8. Remove Neitzel Road.</li> <li>9. Remove eastbound I-80 to SB I-680 connector.</li> <li>10. Excavation and grading of the Business Center Drive Extension.</li> </ol> | Start in 2014 with approximate two-year duration. |

|   |  |  |
|---|--|--|
| 4 | <ol style="list-style-type: none"> <li>1. Construct the northbound I-680 to eastbound I-80 connector.</li> <li>2. Reconstruct the eastbound SR 12W connector to eastbound I-80.</li> <li>3. Reconstruct the eastbound I-80 off-ramp to Green Valley Road.</li> <li>4. Reconstruct Green Valley Road on-ramp to eastbound I-80.</li> <li>5. Realign both Lopes Road and Green Valley Road to connect to the original I-680 alignment.</li> <li>6. Widen SR 12E one lane to the south, including widening the culvert for Ledge wood Creek.</li> </ol> | Start in 2014 with approximate two-year duration. FHWA and Caltrans will adopt the full new alignment of I-680 and transfer the original alignment to local control. |
| 5 | <ol style="list-style-type: none"> <li>1. Construct the northbound I-680 to westbound SR 12W connector.</li> <li>2. Reconstruct the I-80/Red Top interchange.</li> <li>3. Construct a new SR 12W/Red Top Road interchange.</li> <li>4. Construct the Red Top Road/Business Center Drive extension.</li> </ol>  | Start in 2018 with approximate two-year duration.  |
| 6 | <ol style="list-style-type: none"> <li>1. Construct the I-80/I-680 HOV connectors.</li> </ol>  | Start in 2018 with approximate two-year duration.  |
| 7 | <ol style="list-style-type: none"> <li>1. Construct the northbound I-680/WB I-80 loop on-ramp.</li> <li>2. Construct the eastbound I-80 connector to southbound I-680.</li> <li>3. Reconstruct the Union Pacific Railroad underpass.</li> </ol>  | Start in 2018 with approximate 1.5-year duration.  |

NOTE: This schedule is approximate and subject to change.

Work in drainages and wetlands will be restricted to the dry season (April 15–October 15, or as otherwise specified in regulatory permits). Work in drainages that support habitat for anadromous fish, such as Green Valley Creek and Ledge wood Creek, will be restricted to the time when fish are not as likely to be present. To the extent possible, vegetation removal will be limited to between September 1 and January 31 to minimize adverse effects to migratory birds. Nighttime construction will be minimized.

### *Construction Activities*

#### Highway and Road Construction

Highway construction for Phase 1 will consist of widening I-80 to the north for approximately 1 mile between a point west of Suisun Valley Road and SR 12W, realignment of I-680 and realignment of the connector between westbound I-80 and SR 12W. Caltrans will acquire additional ROWs to accommodate the widening. Some highway construction will take place in all seven Construction Packages.

Highway construction will generally consist of cutting and filling to create a roadbed, grading to a maximum depth of 3.3 feet, paving or repaving, and striping or restriping. Highway sections will be constructed or altered to encourage drainage to the sides of the highway.

Roadway excavation will be conducted using equipment such as scrapers, front-end loaders, and motor graders to excavate the area and haul material to construct the embankments necessary to support the proposed roadways. Surplus excavated material will be hauled offsite to an approved commercial disposal site using dump trucks when necessary. The location(s) of material borrow and location and type of material disposal will be determined by the contractor. Caltrans will require the contractor to obtain any necessary environmental clearances associated with obtaining a material borrow site, or with the disposal or reuse of surplus materials. Once the roadbed has been excavated, the soil will be rolled and vibrated with a sheepsfoot or drum roller to 95 percent relative compaction.



### SR 12E Widening

In Construction Package 4, a third eastbound lane and standard shoulder will be constructed along SR 12E from I-80 east to the existing Webster Street off-ramp immediately east of the SR 12E/Pennsylvania Avenue intersection. Construction of the lane and shoulder will include retaining walls to minimize temporary and permanent disturbance south of SR 12E, and the existing ROW fence would remain in its current location. Drainage improvements along SR 12E would maintain existing hydrological conditions and patterns.

### Business Center Drive Extension

Construction of the extension of Red Top Road to Business Center Drive will include excavation to a maximum depth of 95 feet in some areas prior to grading and paving. Excavation and grading will occur during Construction Package 3 and roadway construction will occur during Construction Package 5. Three undercrossings will be included in the Business Center Drive Extension between the existing terminus of Business Center Drive and the proposed intersection with Jameson Canyon Road (SR 12W). The undercrossings will include two approximately 15 by 14 feet span style undercrossings corresponding with two existing dirt access roads. The easternmost large undercrossing will allow continued vehicle access to an existing residence and the second undercrossing will enable access for vehicles and cattle to the Mangels' Pond. The third culvert will be located between the pond access and Jameson Canyon Road. This 60-inch diameter round culvert will convey an ephemeral drainage and will be designed to have a natural bottom (dirt or gravel). The extension from the Jameson Canyon Road intersection to I-80 will include a span bridge over Jameson Canyon Creek.

Approximately 2.5 miles of directional fencing will be attached to the ROW fencing paralleling the Business Center Drive Extension. The ROW fencing is intended to define the ROW, deter access to adjacent private land, and keep livestock from entering the ROW. The attached directional fencing is intended to exclude California red-legged frogs from the ROW and guide them to the three undercrossings and Jameson Canyon Creek Bridge described in the previous paragraph. The fencing will consist of hard plastic or a combination of permanent hardware cloth and flashing with a lip sufficient to deflect frogs on the top, or similar material and design. Directional fencing will be attached to the newly installed ROW fence on both sides of the new roadway constructed between Business Center Drive and I-80. The fence will be constructed along Business Center Drive, which is a local road off the State highway system, and its long-term maintenance will be the responsibility of STA.

### Culverts and Bridge/Box Culvert Construction

The project would require the extension/widening of 12 existing culverts and bridges.

*Bridge Replacement Construction Activities.* The existing I-80 bridges over Green Valley Creek will be replaced with single-span structures. In Construction Package 3, the existing westbound I-80 bridge will be removed and replaced with a single-span structure approximately 103 feet long and 133 feet wide. A new single-span Green Valley Creek bridge for the I-80 Green Valley Road off-ramp will be approximately 180 feet long and 39 feet wide.

Bridge replacement will occur in two segments to maintain traffic on I-80. The work within Green Valley Creek bed and bank for each segment is expected to take approximately four



months and will be scheduled between June 15 and October 15. Bridge demolition will occur when Central Valley fall-run/late-fall-run Chinook salmon and central California coast steelhead are less likely to be present. Any work occurring before June 15 or after October 15 will be restricted to the road or bridge surface, and all work in or adjacent to a creek will be done with the implementation of water quality best management practices (BMPs).

Construction equipment would access the site from the north side of I-80. A staging area will be located within the curve of the I-680 entrance to westbound I-80. Bridge construction will involve the following activities.

1. Bridge abutment locations will be scarified and then excavated to the bottom of the abutment or pile cap using backhoes or bobcats. In some cases, the area adjacent to the abutment will be over-excavated by several feet to ensure that low-expansion material is adjacent to the abutment and wing walls.
2. Temporary cofferdams will be constructed both upstream and downstream of the bridge, and a piped water diversion system will be installed. The cofferdams will be at least 20 feet from the limit of the existing bridge.
3. Pile driving will be necessary to construct new bridge abutments for both bridges over Green Valley Creek. Piles will be located at the top of the creek bank and are anticipated to be 12-inch-square piles driven to a depth of approximately 70 feet. A vibratory hammer will be used when feasible. The number of strikes will depend on the loading and soil characteristics. Pile driving equipment will be operated from beyond the top bank.
4. Concrete abutments or pile caps will be constructed above the piles.
5. Wooden or steel falsework will be placed within the creek (banks and channel) once the abutments and columns have been constructed as necessary to support the construction of the cast-in-place concrete box girder structures.
6. When the reinforcement is set, the concrete will be placed for the superstructure. Once the concrete for the superstructure has hardened the tendons will be tensioned.
7. The last elements of major construction for the bridges will be bridge railings, approach slabs (placed on the embankment approaches to the bridge), and slope paving.
8. To the extent practicable, disturbed portions of Green Valley Creek (bed and bank) will be restored to pre-project conditions upon completion of construction. This may include grading and contouring the site, and seeding or planting with native plants as appropriate.

*Culvert Construction Activities.* Culvert construction will take place at Ledgewood Creek in Construction Package 3 and at Jameson Canyon Creek in Construction Packages 3 and 4. Construction associated with the culverts is expected to take approximately four months and will be scheduled during the driest time of the year (June 15–October 15).



Culvert construction will involve the following activities:

1. Temporary cofferdams (made of gravel, fabric, and pipe) will be constructed upstream and downstream from the culvert; a water diversion system using pipes will be installed to facilitate dewatering of the channel within the cofferdam during construction while bypassing creek flow. The cofferdams will be approximately 20 feet from the limit of the existing culvert.
2. Temporary cofferdams will be constructed to facilitate excavation of existing footings. The cofferdams will consist of gravel wrapped in fabric and would be slightly larger than the footing plan dimensions.
3. Vibratory equipment will be used to compact soil if feasible.
4. Falsework will be placed within the creek (banks and channel) as necessary to support construction of the cast-in-place (poured) concrete box culvert.
5. Falsework will be removed after concrete has set.
6. The concrete invert slab (i.e., invert of the culvert) will be extended to the edge of the widened culvert.
7. To the extent practicable, disturbed portions of Ledgewood Creek and Jameson Canyon Creek (bed and bank) will be restored to pre-project conditions when construction is complete. This may include grading and contouring the site, and seeding or planting with native plants as appropriate.

*Ledgewood Creek Culvert.* The Ledgewood Creek culvert will be extended 15 feet to the south to accommodate an additional lane for SR 12E (Construction Package 4). The existing crossing consists of a series of five culverts, each measuring 16.5 feet wide and supported by wall piers.

Construction associated with the culvert is expected to take approximately four months and will be scheduled during the driest time of the year (June 15–October 15) for ease of operation and to avoid potential effects to anadromous fish.

*Jameson Canyon Creek Culvert.* The Jameson Canyon Creek culvert will be constructed under the new I-680 alignment. It will be a two-box culvert, with each box approximately 12 feet wide and 8 feet high. Construction associated with the culvert is expected to last approximately four months and will be scheduled during the driest time of the year (June 15–October 15).

### Utilities

As part of the proposed project, utilities within the project footprint will be relocated, realigned, or extended as necessary to accommodate project construction and operation. The maximum extent of disturbance from utilities falls within the project footprint. Utilities that will be affected are water, electrical, gas, cable/fiber, and telephone lines. Actions affecting these utilities will be coordinated with the respective operators. Caltrans will submit detailed



descriptions of utility relocations should the area of disturbance exceed the limits of the current proposed project footprint.

#### Staging Locations

Caltrans has identified potential construction staging areas within the proposed action area. Should construction contractors determine that other staging areas within or outside the state ROW and proposed action area are necessary to complete work, the contractor will be required by Caltrans or STA to obtain all necessary environmental clearances associated with the alternative staging areas prior to their use for staging purposes. Staging locations will be used for temporary placement of heavy construction equipment and vehicles; construction materials such as shotcrete (a mixture of concrete, fine aggregate, and water blown pneumatically through a hose), gravel, road base, and rebar; equipment maintenance shops; field offices; and rest rooms.

Access roads linking staging areas to the various work areas will be cleared and graded using equipment such as excavators, bobcats, and bulldozers. Upon project completion, and to the extent practicable, staging location and access roads will be returned to their pre-project conditions.

#### Construction Site Restoration

Caltrans plans to restore areas of temporary ground disturbances, including storage and staging areas, and temporary roads. These areas will be re-contoured, if appropriate, and revegetated with seeds and/or cuttings of appropriate native plant species to promote restoration of the area. Caltrans has developed a restoration plan that will be submitted to the Service for approval prior to initial ground breaking. This plan includes immediate application of permanent erosion control measures for all areas disturbed by construction activities. The permanent erosion control measures will include native (here referring to species naturally occurring in Solano County) grass and forb seed, fertilizer, compost and mulch for soil protection. The restoration plan also includes planting at each creek crossing using a combination of wetland, riparian and upland/transitional species appropriate for the conditions at the specific creek crossings and is informed by local reference sites. To the maximum extent practicable (i.e., presence of natural lands), topsoil will be removed, cached, and returned to the site according to successful restoration protocols. Loss of soil from run-off or erosion will be prevented with straw bales, straw wattles, or similar means provided they do not entangle or block California red-legged frog escape or dispersal routes.

#### Equipment

Construction is expected to require heavy equipment such as cranes, pile drivers, vibratory and hydraulic hammers, excavators, bobcats, bulldozers, roadheaders, hydraulic excavators or backhoes, scrapers, rubber-tired dump trucks, front-end loaders, load-haul-dumps, drill jumbos, front-end loaders and motor graders, sheepsfoot or drum rollers, and asphalt-paving machines.

Temporary construction areas will be cleared, graded, and reestablished using equipment such as excavators, bulldozers, and/or bobcats.



### Routine Maintenance

Routine maintenance activities are anticipated within the R-O-Ws. Within R-O-Ws determined to be temporarily impacted, routine maintenance may have restrictions.

### *Proposed Conservation Measures*

Caltrans proposes to avoid and minimize effects to the showy Indian clover, Contra Costa goldfields, vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, Central California Distinct Population Segment of the California tiger salamander, and California red-legged frog by implementing the following measures:

1. All construction personnel will attend a mandatory Worker Environmental Awareness Training Program delivered by a Service-approved biologist prior to working on the project site. The program will focus on the conservation measures that are relevant to employee's personal responsibility and will include an explanation as how to best avoid take of the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog. The program will include an explanation of Federal laws protecting these listed species as well as the importance of compliance with this biological opinion. Documentation of the training, including sign-in sheets, will be kept on file and will be available on request.
2. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.
3. A Service-approved biologist(s) will be on-site during any ground-disturbing activities that have the potential to adversely affect the showy Indian clover, Contra Costa goldfields, vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, California tiger salamander, and California red-legged frog.
4. A Service-approved biologist will be present during all construction-related activities in sensitive habitats. If special-status species are discovered during these activities, the Service-approved biologist, through the Resident Engineer, will halt all work within 50 feet of the species and contact the Service to determine how to proceed.
5. Prior to construction, Environmentally Sensitive Areas will be delineated using high-visibility orange construction fencing installed along the perimeter of the work areas to clearly delineate the extent of the construction area. The project plans will show the locations where fencing will be installed. The plans will also define the fencing installation procedure. The project's special provisions package will provide clear language regarding acceptable fencing material and prohibited construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities within sensitive areas.



6. No more than 20 calendar days prior to any ground disturbance in a given location, pre-construction surveys will be conducted by a Service-approved biologist for the showy Indian clover, Contra Costa goldfields, vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, elderberry plants, and California red-legged frog where habitat was identified for each respective species. These surveys will consist of walking surveys of the project limits and accessible adjacent areas within at least 50 feet of the project limits. The biologist(s) will investigate all potential California red-legged frog cover sites. This includes thorough investigation of mammal burrows, appropriately sized soil cracks, and debris. Native vertebrates found in the cover sites will be documented and relocated to an adequate cover site in the action area vicinity. The entrances and other refuge features within the project limits will be collapsed or removed following investigation and clearance.
7. Vegetation clearing will be limited throughout the proposed project area to the non-nesting season (September 1–January 31) to the extent possible. Vegetation removal work outside this window will be preceded by preconstruction nest clearance surveys.
8. Vegetation will be cleared only where necessary and will be cut approximately 4 inches above soil level except in areas that will be excavated for roadway construction. This will allow plants that reproduce vegetatively to resprout after construction. All clearing and grubbing of woody vegetation will be done using hand tools, small mechanical tools, or backhoes and excavators. All cleared vegetation will be removed from the project footprint to prevent attracting animals to the project site.
9. All slopes or unpaved areas temporarily disturbed by construction activities will be stabilized to prevent erosion at least three days prior to a forecasted rain event. After construction activities, the temporarily disturbed areas will be restored to pre-project conditions to the maximum extent practicable. Where disturbance includes the removal of trees, native species will be replanted.
10. To reduce the spread of invasive, nonnative plant species and minimize the potential decrease of palatable vegetation for wildlife species, Caltrans will comply with Executive Order 13112. This order is intended to prevent the introduction of invasive species and provide for their control to minimize adverse economic, ecological, and human health effects. In the event that noxious weeds are disturbed or removed during construction-related activities, the contractor will be required to contain the plant material associated with these noxious weeds and dispose of them in a manner that will not promote the spread of the species. The contractor will be responsible for obtaining all permits, licenses, and environmental clearances for properly disposing of materials. Areas subject to noxious weed removal or disturbance will be replanted with fast-growing native grasses or a native erosion control seed mixture. If seeding is not possible, the area of disturbance will be covered to the extent practicable with heavy black plastic solarization material until the end of project construction.
11. Construction access, staging, storage, and parking areas will be located within the project ROW or temporary easements and outside of designated Environmentally Sensitive



Areas. Access routes and the number and size of staging and work areas will be limited to the minimum necessary to construct the proposed project. Routes and boundaries of roadwork will be clearly marked prior to initiating construction or grading.

12. All food and food-related trash items will be enclosed in sealed trash containers and removed completely from the site at the end of each day.
13. No firearms will be allowed in the action area except for those carried by authorized security personnel, or local, State, or Federal law enforcement officials.
14. Caltrans and STA will install bio-swales and bio-filtration in the area adjacent to roadways to avoid and minimize sediment loading and point source pollutants.
15. Stormwater pollution prevention plans (SWPPPs) and erosion control BMPs will be developed and implemented to minimize any wind- or water-related erosion and will be in compliance with the requirements of the Regional Water Quality Control Board. The design staff will include provisions in construction contracts for measures to protect sensitive areas and prevent and minimize stormwater and nonstormwater discharges. Protective measures will include, at a minimum, those listed below.
  - a. No discharge of pollutants from vehicle or equipment cleaning will be allowed into any storm drains or water courses.
  - b. Vehicle and equipment fueling and maintenance operations will be at least 50 feet away from water courses, except at established commercial gas stations or established vehicle maintenance facilities.
  - c. Concrete waste and water from curing operations will be collected in washouts and will be disposed of and not allowed into water courses.
  - d. Spill containment kits will be maintained onsite at all times during construction operations and/or staging or fueling of equipment.
  - e. Dust control measures will include use of water trucks and organic tackifiers to control dust in excavation-and-fill areas, covering temporary access road entrances and exits with rock (rocking), and covering of temporary stockpiles when weather conditions require.
  - f. Silt fences, coir rolls, or straw wattles will be installed along or at the base of slopes during construction to capture sediment.
16. All equipment will be maintained such that there will be no leaks of automotive fluids such as gasoline, oils, or solvents, and a Spill Response Plan will be prepared.
- 17 To prevent inadvertent entrapment of animals during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each

working day with plywood or other suitable material, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled they must be thoroughly inspected for trapped animals. All replacement pipes, culverts, or similar structures stored in the action area overnight will be inspected before they are subsequently moved, capped, or buried. If at any time a listed species is discovered, the Resident Engineer and Service-approved biologist will be immediately informed. The animal will be allowed to move out of the area on its own volition.

18. If requested through the Resident Engineer or Construction Inspector before, during, or upon completion of groundbreaking and construction activities, Caltrans will ensure that the Service and/or its designated agents can, immediately and without delay, access and inspect the project site for compliance with the proposed project description, conservation measures, and terms and conditions of the biological opinion, and to evaluate project effects on listed species and their habitat.
19. The following measures are intended to avoid and minimize effects to the showy Indian clover
  - a. Prior to groundbreaking for Construction Package 3, protocol-level surveys of the inaccessible parcels on the Mangels' property north of SR 12W will be conducted for showy Indian clover in accordance with the Service protocol.
  - b. If protocol-level surveys identify showy Indian clover plants within 250 feet of the project footprint, the project footprint will be fenced and flagged to ensure that construction equipment and construction activities are confined and completely avoid any potential direct or indirect effects on individual showy Indian clover plants during construction. In the event of a positive survey finding, Caltrans will implement the following specific measures.
    - i. Orange Environmentally Sensitive Area construction barrier fencing at least 4 feet in height will be installed to protect Environmentally Sensitive Areas. A Service-approved biologist will identify sensitive biological resources adjacent to the construction area; the Environmentally Sensitive Areas to be fenced will be included in the contract plans and specifications.
    - ii. A Service-approved biologist will identify potential showy Indian clover habitat, and a protective silt fence, described in the Caltrans Standard BMPs, will be installed to protect down-gradient habitat for showy Indian clover from being affected by sediment loading.
    - iii. Construction activities conducted within the area of potential showy Indian clover habitat will be confined to the driest season (June 1–October 15) to protect down-gradient, showy Indian clover habitat and minimize potential indirect dust effects on identified flowering showy Indian clover plants.



- iv. A Service-approved biologist will be present during all ground-disturbing activities occurring within 250 feet of occupied showy Indian clover habitat to ensure that showy Indian clover habitat is avoided.
- v. Vegetation removal within 250 feet of occupied showy Indian clover habitat will be limited to the maximum extent practicable.
- vi. A Service-approved biologist will develop and conduct environmental education training for construction employees working on ground-disturbing activities. The program will include the following: a description of showy Indian clover and its habitat needs, photographs of the plant species, an explanation of its legal status and protection under the Act, and a list of the measures that will be implemented to minimize and avoid potential effects on showy Indian clover.
- vii. The Service-approved monitor will coordinate with the Resident Engineer to ensure that the contractor maintains the staked, fenced, and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources, including occupied or potential showy Indian clover habitat.

20. The following measures are intended to minimize direct and indirect effects to callippe silverspot butterfly.

- a. Caltrans will minimize harm to the callippe silverspot butterfly resulting from the adverse effects to 58.14 acres of habitat. Compensation implemented within Service-approved areas that are both California red-legged frog habitat and Callippe silverspot butterfly may be overlaid on common acreage as long as it is appropriate habitat for each species. The area will receive conservation credit from the Service for both species. The compensation will be phased to coincide with project construction packages as presented in Table 1 and implemented 60 calendar days prior to the date of initial ground disturbance.

Compensation will be based on the amount of permanent and temporary loss of callippe silverspot butterfly habitat. Temporary habitat loss will be compensated at rates based on the amount of time it takes to restore the habitat to baseline conditions following the date of initial habitat disturbance and whether the restored habitat will be subjected to ongoing roadway maintenance activities that would not be entirely beneficial to the species. Off-site conservation will offset routine maintenance activities that are short in duration, e.g. mowing. Habitat value in these R-O-W areas is diminished but not permanently destroyed. Should the determination of permanent versus temporary habitat loss change after Caltrans has provided this compensation, Caltrans will provide additional compensation, if necessary, or apply excess compensation towards future projects that adversely affect the callippe silverspot butterfly.

The maintained ROW is defined as the ROW between the edge of pavement or denuded road shoulder and the Caltrans ROW fence. Permanent effects will

occur within the bounds of the maintained ROW (road surface and area between edge of pavement and ROW fence).

**Callippe Silverspot Butterfly Habitat Compensation**

| Level of Effect | Duration <sup>1</sup> | Compensation Ratio  | Acres of Effects <sup>2</sup> | Acres of Compensation <sup>3</sup> |
|-----------------|-----------------------|---|-------------------------------|------------------------------------|
| Permanent       | Permanent             | 3:1   | 38.82                         | 116.46                             |
| Temporary       | Within 1 year         | 1:1 on-site<br>0.5 off-site                                   | 19.32                         | 9.66                               |
|                 | Within 2 years        | 1:1 on-site<br>1.5:1 off-site                                 | 0                             | 0                                  |
|                 | Greater than 2 years  | 3:1 off-site <b>OR</b><br>2:1 off-site <b>AND</b> 1:1 on-site | 0                             |                                    |
| <b>TOTAL</b>    |                       |   | <b>58.14</b>                  | <b>126.12</b>                      |

<sup>1</sup> period of time from the date of initial ground disturbance until the success criteria described in the restoration/revegetation plan are met.

<sup>2</sup> as per GIS map dated March 2012, potential to be adjusted at final project design, with subsequent reinitiation.

<sup>3</sup> Acres of compensation = off-site areas.

Caltrans will compensate for adverse effects to callippe silverspot butterfly habitat by implementing one of the following two options:

- i. Caltrans will establish in-perpetuity callippe silverspot butterfly habitat preservation by purchasing habitat or purchasing callippe silverspot butterfly habitat credits from a Service-approved conservation bank.

Compensation will be implemented with in-perpetuity preservation of callippe silverspot butterfly habitat with high conservation values and (1) include ridge line topographical features associated with callippe silverspot butterfly breeding behavior and adult and/or larval nectar plants, and (2) preference given to areas located within the Callippe Silverspot Butterfly Conservation Area defined in the Draft Solano HCP (SCWA 2009). Location of the proposed conservation areas will be submitted to the Service for review and approval.

The habitat will include a Service-approved conservation easement, held by a third party. An approved ecologically-based conservation easement will include managed public access, a management plan, and an in-perpetuity endowment or other permanent non-wasting management fund based on a PAR-like property analysis. The management plan will include a description of the site, management needs (e.g. grazing plan, non-native vegetation and animal control, etc), when the management activities will be implemented, how often and to what level monitoring of the site will occur, and an action/contingency plan to address potential management issues.



- ii. Caltrans will implement or fund restoration and enhancement actions within occupied callippe silverspot butterfly habitat that will have beneficial effects on the species. Such measures shall be implemented on lands with in-perpetuity conservation beneficial to the callippe silverspot butterfly.

Implementation includes identification of land to be restored or enhanced, associated agreements to fund restoration or enhancement activities, and a restoration plan and schedule approved by the Service.

- b. Caltrans will survey for the presence of adult nectar and larval host plants and adult nectar sources within areas that will be subject to temporary effects within callippe silverspot habitat. The surveys will be conducted during the blooming season (March to May) no more than one year prior to the excavation and grading of the Business Center Drive Extension proposed to occur during Construction Packages within Callippe silverspot butterfly habitat. SLT will be contacted in order to synchronize the surveys with peak *Viola* blooming on the Swett Ranch. Observed adult nectar plants and *Viola* will be mapped and flagged. Caltrans will modify the boundaries of temporary work areas to avoid the nectar and host plants when feasible.
- c. To the maximum extent possible, Caltrans will avoid areas of *Viola* delineated prior to construction and during preconstruction surveys within temporary affected areas.
- d. The project footprint will be clearly delineated with Environmentally Sensitive Area fencing and signage to limit construction activities to the described footprint and to maintain awareness. All Environmentally Sensitive Areas will be shown on the final construction drawings.
- e. Grading activities within callippe silverspot butterfly habitat will be conducted between August 1 and April 1, to the extent practicable as determined during constructability review. When grading activities must take place after April 1 and before August 1, daily biological monitoring will occur for the callippe silverspot butterfly.
- f. Insecticides or herbicides in the Business Center Drive Extension ROW will not be applied during road construction or long-term operational maintenance within 300 feet of the host plant occurrences mapped by Monk & Associates in 2004 or otherwise identified or adult nectar plants or from other locations where the chemical treatments can be carried in by wind or surface flow.
- g. Standard erosion and dust control measures will be implemented to minimize the deposition of dust, soil, and silt on callippe silverspot butterfly habitat.

- h. Caltrans and STA will ensure there is no drift of sprayable dust control formulations used for dust and erosion control towards callippe silverspot butterfly habitat during construction. Appropriate spray devices and application methods, such as spray pressures, nozzle opening size, and additives such as spray retardants, will be used to prevent drift. Applications will be made on calm days or when the wind speed is low and blowing away from callippe silverspot butterfly habitat. Spray applications will not be made within 200 yards by air or 40 yards by ground upwind from callippe silverspot butterfly habitat. Applications will not occur during rain events.
  - i. No equipment will be driven or parking or laydown areas established within 20 feet of larval host plants located outside the defined construction footprint and, to the extent feasible, within 20 feet of adult nectar plants located outside the defined construction footprint.
  - j. If any other life history phases of the callippe silverspot butterfly are found such as adults, pupae, larvae, or eggs, the Service shall be immediately contacted for further guidance.
- 21 The following measures are intended to avoid and minimize direct and indirect effects to vernal pool fairy shrimp and vernal pool tadpole shrimp.
- a. The potential vernal pool fair shrimp and vernal pool tadpole shrimp habitat within the action area is within what is described in the draft Solano HCP as having a low conservation value. Caltrans will compensate for the effects to 1.71 acres (1.45 acres direct effects + 0.26 acre indirect effects) of vernal pool habitat based on the conservation strategy in the draft Solano HCP as follows:

**Listed Vernal Pool Crustacean Compensation**

| Type of Effect | Compensation Ratio | Acres of Effects | Acres of Compensation | Type of Compensation                          |
|----------------|--------------------|------------------|-----------------------|---|
| Direct         | 1:1                | 1.45             | 1.45                  | Preservation of vernal pool and swale habitat |
| Direct         | 1:1                | 1.45             | 1.45                  | Restoration of vernal pool and swale habitat  |
| Indirect       | 1:1                | 0.26             | 0.26                  | Preservation of vernal pool and swale habitat |

- i. The above compensation of 1.71 acres of preservation and 1.45 acres of restoration will be implemented no later than sixty (60) calendar days prior to the date of initial ground disturbance of the specific construction packages. The compensation will be phased to coincide with the initiation of the individual project construction packages as presented in Table 1.
- ii. Preservation and restoration for adverse effects to Low Value Conservation Areas shall occur within Medium to High Value Conservation Areas identified in the draft Solano HCP. The location of the compensation will be submitted for Service approval. Preservation and restoration ratios reflected



above are based on the premise that effects to low value conservation areas will be compensated in medium to high value areas.

- b. To the extent practicable, Caltrans and its contractors will initiate all work in or within 250 feet of potential habitat for vernal pool crustaceans between May 1 and November 1. When construction activities must take place after November 1 and before May 1, daily biological monitoring will occur for the vernal pool crustaceans.
  - c. To the extent practicable, Caltrans will incorporate design modifications to avoid direct permanent effects on potential habitat for federally listed branchiopods.
  - d. Caltrans will avoid potential vernal pool fairy shrimp and vernal pool tadpole shrimp habitat, to the maximum extent practicable, during construction activities in temporary work areas. All potential vernal pool fairy shrimp and vernal pool tadpole shrimp habitat not directly affected will be designated as an Environmentally Sensitive Area and protected with appropriate fencing and signage. All Environmentally Sensitive Areas will be shown on the final construction drawings.
  - e. Caltrans will perform all work in accordance with a SWPPP. BMPs will be implemented and may include the use of silt fences, sandbags, detention basins, and other means as appropriate to prevent erosion into any potential habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp.
22. The following measures are intended to avoid direct and indirect effects to Contra Costa goldfields, and effects to potential listed branchiopods and California tiger salamander habitat immediately south of SR 12E, between Ledgewood Creek and Suisun City.
- a. Caltrans will construct a retaining wall along SR 12E, between Ledgewood Creek and Suisun City. This design feature will limit the roadway expansion to the existing raised roadbed and avoid permanent intrusion into the immediately adjacent seasonal wetland habitat (Gentry Suisun wetland).
  - b. The boundaries of this habitat along SR 12E will be identified as inaccessible by an orange construction barrier fence and depicted on final design plans. The fence will be at least 4 feet high, it will include signage as the boundary of an Environmentally Sensitive Area, and the installation will be guided and monitored by a Service-approved biologist.
  - c. A Service-approved biologist will identify potential Contra Costa goldfields habitat prior to ground-disturbing activities, and a protective silt fence, described in the Caltrans Standard BMPs, will be installed to protect down-gradient areas from being affected by sediment loading. This fencing will prevent direct impacts on wetlands south of SR 12E between Ledgewood Creek and the eastern end of the construction area.



- d. A Service-approved biologist will conduct construction monitoring in and adjacent to all sensitive special-status plant populations. Construction monitoring frequency will range from daily to weekly depending on the biological resource and the construction activities.
  - e. A Service-approved biologist will coordinate with the Resident Engineer to ensure that the contractor maintains the staked, fenced, and flagged perimeters of the construction area and staging areas adjacent to sensitive biological resources, including potential Contra Costa goldfields habitat.
  - f. Vegetation removal on the south side of the existing SR 12E will be limited to the minimum necessary.
  - g. The Service-approved biologist will be present during all ground-disturbing activities occurring within 250 feet of vernal pool habitat.
  - h. Construction activities conducted within the area between Ledgewood Creek and Suisun City will be confined to the driest season (April 15–October 15, or as otherwise specified in regulatory permits) to protect down-gradient habitat.
  - i. Caltrans or STA will survey the seasonal wetland / pools south of their Biological Study Area located between SR 12E, Pennsylvania Avenue, Ledgewood Creek, and the SPRR rail line for California tiger salamander prior to construction. Should these surveys find occurrences of California tiger salamander within the action area, Caltrans and STA will reinitiate formal Section 7 consultation with the Service.
23. The following measures are intended to avoid and minimize direct and indirect effects to valley elderberry longhorn beetle.
- a. Caltrans will install Environmentally Sensitive Area fencing and flag all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the Service, the fencing will provide a minimum 2-foot setback from the drip line of each elderberry plant.
  - b. Caltrans will provide contractors with training educating them on the status of the valley elderberry longhorn beetle and its host plant and emphasize the need to avoid damaging elderberry plants.
  - c. Caltrans will erect signs every 50 feet along the edge of the avoidance area with the following information: “This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.” The signs will be clearly readable from a distance of 20 feet, and will be maintained for the duration of construction.

- d. Caltrans will restore, to the maximum extent practicable, any damage or disturbance to the buffer area (areas within 100 feet of elderberry plants) during construction. Caltrans will provide erosion control and revegetate the areas with appropriate native plants.
- e. Caltrans will prohibit the use of insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant in the buffer areas or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or more in diameter at ground level.
- f. Caltrans and STA will work with the Solano County Resource Conservation District or a Service-approved bank to facilitate the plant removal and transplanting effort. Transplantation of ten elderberry shrubs that are within the construction footprint will be done prior to ground-disturbing activities within 100 feet of the shrubs and will be conducted according to the Service's 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*. A Service-approved biologist will be on-site to monitor the transplanting of the elderberry plants.
- g. Caltrans will implement one or a combination of the following:
  - i. Provide replacement plantings and associated native plantings as described in Table 1 at a Service-approved location.

**Table 1.** Minimization ratios based on location, stem diameter of affected elderberry plants at ground level, and presence or absence of exit holes.

| Location     | Stem Diameter (inches) | Exit Holes Present (No/Yes) | Number of Stems | Elderberry Seedling Ratio | Elderberry Seedling Plantings | Associated Native Plant Ratio | Associated Native Plantings |
|--------------|------------------------|-----------------------------|-----------------|---------------------------|-------------------------------|-------------------------------|-----------------------------|
| Non-riparian | 1-3                    | N                           | 8               | 1:1                       | 8                             | 1:1                           | 8                           |
|              |                        | Y                           | 2               | 2:1                       | 4                             | 2:1                           | 8                           |
|              | 3-5                    | N                           | 7               | 2:1                       | 14                            | 1:1                           | 14                          |
|              |                        | Y                           | 1               | 4:1                       | 4                             | 2:1                           | 8                           |
|              | > 5                    | N                           | 5               | 3:1                       | 15                            | 1:1                           | 15                          |
|              |                        | Y                           | 2               | 6:1                       | 12                            | 2:1                           | 24                          |
| Riparian     | 1-3                    | N                           | 20              | 2:1                       | 40                            | 1:1                           | 40                          |
|              |                        | Y                           | 0               | 4:1                       | 0                             | 2:1                           | 0                           |
|              | 3-5                    | N                           | 8               | 3:1                       | 24                            | 1:1                           | 24                          |
|              |                        | Y                           | 0               | 6:1                       | 0                             | 2:1                           | 0                           |
|              | > 5                    | N                           | 9               | 4:1                       | 36                            | 1:1                           | 36                          |
|              |                        | Y                           | 0               | 8:1                       | 0                             | 2:1                           | 0                           |
| <b>Total</b> |                        |                             | <b>62</b>       |                           | <b>157</b>                    |                               | <b>177</b>                  |

- ii. Purchase valley elderberry longhorn beetle credits from a Service-approved conservation bank.
- h. Two elderberry shrubs are located within 100 feet of the limit of disturbance. These shrubs will be protected by:



- i. Fencing and flagging all areas to be avoided during construction activities. In areas where encroachment on the 100-foot buffer has been approved by the Service, Caltrans will provide a minimum setback of at least 20 feet from the dripline of each elderberry plant.
- ii. Erecting signs every 50 feet along the edge of the avoidance area with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs should be clearly readable from a distance of 20 feet, and must be maintained for the duration of construction.

24. The following measures are intended to avoid and minimize direct and indirect effects to California red-legged frog.

- a. Caltrans will compensate for harm resulting from adverse effects to the California red-legged frog and 97.80 acres of its habitat, and the adverse effects critical habitat for the California red-legged frog by providing appropriate habitat compensation.

The compensation will be based on the amount of permanent and temporary loss of red-legged frog habitat. Temporary habitat loss will be compensated at rates based on the amount of time it takes to restore the habitat to baseline conditions following the date of initial habitat disturbance and whether the restored habitat will be subjected to ongoing Caltrans routine maintenance activities, e.g. mowing, that may affect the species.

The maintained ROW is defined as the ROW between the edge of pavement or denuded road shoulder and the Caltrans ROW fence. Permanent effects will occur in areas of maintained ROW that include barriers to frog movement. Areas of ROW within and adjacent to retaining walls will be permanently affected by the project. Caltrans commits to installing a Service-approved frog exclusion fence along the proposed Business Center Drive Extension from the existing Business Center Drive to Jameson Canyon Road in order to direct California red-legged frogs to the three proposed undercrossings. Since the exclusion fence will likely prevent individuals of this threatened species from entering the maintained ROW, the entirety of the ROW within this area will be permanently affected by the proposed project. However, less compensation is necessary as the directional fence also results in a beneficial effect to California red-legged frogs by directing them to safe undercrossings. Off-site compensation is proposed to offset temporary impacts within the maintained R-O-W since habitat will continue to be impacted by on-going routine maintenance activities, e.g. mowing. Lastly, additional off-site compensation is necessary for temporal loss of habitat.

Caltrans will compensate for the loss of habitat of the California red-legged frog by implementing the following:

| <b>California Red-Legged Frog Habitat Compensation</b> |   |                             |   |                                     |  |
|--|---|-----------------------------|---|-------------------------------------|--|
| <b>Level of Effect</b>                                 | <b>Location of disturbance</b>                          | <b>Duration<sup>1</sup></b> | <b>Compensation Ratio</b>   | <b>Acres of Effects<sup>2</sup></b> | <b>Acres of Compensation<sup>3</sup></b> |
| Permanent  | Within or beyond maintained ROW                         | Permanent                   | 3:1   | 78.48                               | 235.44                                   |
|  | Within maintained ROW and excluded by directional fence | Permanent                   | 2:1   | 0                                   | 0  |
| Temporary  | Within the maintained ROW                               | Within 1 year               | 1:1 on-site<br>1:1 off-site                                       | 0                                   | 0  |
|  | Beyond the maintained ROW                               | Within 1 year               | 1:1 on-site<br>0.5:1 off-site                                     | 19.32                               | 9.66                                     |
|  | Within the maintained ROW                               | Within 2 years              | 1:1 on-site<br>1.5:1 off-site                                     | 0                                   | 0  |
|  | Beyond the maintained ROW                               | Within 2 years              | 1:1 on-site<br>1:1 off-site                                       | 0                                   | 0  |
|  | Within or beyond maintained ROW                         | Greater than 2 years        | 3:1 off-site <b>OR:</b><br>2:1 off-site<br><b>AND</b> 1:1 on-site | 0                                   | 0  |
| <b>TOTAL</b>   |   |                             |   | <b>97.80</b>                        | <b>245.1</b>                             |

<sup>1</sup> period of time from the date of initial ground disturbance until the success criteria described in the restoration/revegetation plan are met.

<sup>2</sup> as per GIS map dated March 2012, potential to be adjusted at final project design, with subsequent reinitiation.

<sup>3</sup> Acres of compensation = off-site lands.

Compensation implemented within areas that are both California red-legged frog habitat and Callippe silverspot butterfly habitat may be overlaid on common acreage as long as the area is appropriate habitat for each species. With Service approval, the conservation lands would receive compensation credit from the Service for both species.

Compensation will be implemented with in-perpetuity preservation of California red-legged frog habitat with high conservation values, consistent with the parameters described in the Draft Solano HCP (SCWA 2009) within sixty (60) calendar days prior to the date of initial ground disturbance at the project.

California red-legged frog habitat used for conservation will be: (1) preferably located within the California Red-Legged Frog Conservation Area defined in the Draft Solano HCP (SCWA 2009), (2) within 0.7 mile of unobstructed California red-legged frog breeding habitat and non-breeding aquatic habitats, (3) within a California red-legged frog critical habitat unit or within the vicinity of frog critical habitat, and (4) approval by the Service.

- b. The Resident Engineer will stop work at the request of the Service-approved biologist(s) if activities are identified that may result in take of a California red-legged frog. Should the biologist(s) or Resident Engineer exercise this authority, the Service will be notified by telephone and email within one working day. The Service contact will be the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600.



- c. The Resident Engineer will halt work immediately and contact the Service-approved project biologist and the Service in the event that a California red-legged frog is found within the construction zone. The Resident Engineer will suspend all construction activities in the immediate construction zone until the animal leaves the site voluntarily or is removed by the biologist to a release site using Service-approved transportation techniques.
- d. To the extent practicable, initial ground-disturbing activities will be avoided between November 1 and March 31 to avoid the period when California red-legged frogs are most likely to be moving through upland areas. When ground-disturbing activities must take place between November 1 and March 31, daily monitoring will occur for California red-legged frogs.
- e. Exclusionary fencing will be placed at the edge of active construction areas (cleared by biological surveys) in areas identified as California red-legged frog habitat. The fencing is intended to restrict frog access from the adjacent upland and riparian habitat. The fence will consist of taut silt fabric: 24 inches high, stacked at 10-foot intervals, with the bottom buried 6 inches below grade. The bid solicitation package Special Provisions will clearly describe acceptable fencing material and proper fence installation and maintenance. The wildlife exclusion fence will remain in place throughout the duration of construction activities and will be regularly inspected and fully maintained. The fence will be completely removed upon completion of project-related activities within these areas and the areas returned to preconstruction condition or better.
- f. California red-legged frogs that need to be relocated outside the construction area will be released beyond the exclusion fence within the same riparian area or watershed by the Service-approved biologist. If relocation of the frog outside the fence is not feasible (i.e., there are too many frogs observed per day), the biologist will relocate frogs to a preapproved location determined by Caltrans and the Service. Prior to construction, Caltrans will obtain approval of the relocation protocol from the Service in the event that a California red-legged frog is encountered and needs to be relocated away from the immediate project area.
- g. To prevent inadvertent entrapment of a California red-legged frog during construction, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped listed animal is discovered, the onsite biologist will immediately place escape ramps or other appropriate structures to allow the animal to escape, or the Service will be contacted by telephone for guidance. The Service will be notified of the incident by telephone and email within one working day.
- h. Within and adjacent to California red-legged frog habitat, all construction equipment or construction debris left overnight within the action area will be inspected for



California red-legged frogs by the Service-approved biologist prior to the beginning of each day's activities and prior to being moved.

- i. Injured California red-legged frogs will be cared for by a licensed veterinarian or other qualified person such as the onsite biologist; dead individuals of any listed species will be preserved according to standard museum techniques and held in a secure location. The Service will be notified within one working day of the discovery of death or injury to a listed species that results from project related activities or is observed at the project site. Notification will include the date, time, and location of the incident or of the finding of a dead or injured animal clearly indicated on a U.S. Geological Survey (USGS) 7.5-minute quadrangle and other maps at a finer scale, as requested by the Service, and any other pertinent information. Dead frogs will be placed in a sealed plastic bag with a piece of paper containing information on where and when the animal was found along with the name of the person who found it, the bag will be placed in a freezer located in a secure location until instructions are received from the Service regarding the disposition of the specimen or the Service takes custody of the specimen. The Service contacts are the Coast-Bay/Forest Foothill Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600 and the Resident Agent-in-Charge of Service's Law Enforcement Division at (916) 414-6660.
  - j. To the extent practicable, nighttime construction will be minimized, especially for those areas adjacent to California red-legged frog habitat. When nighttime work is to be conducted in areas adjacent to potential habitat, all lighting will face away from potential habitat.
  - k. Plastic monofilament netting (erosion control matting) or similar material will not be used in the action area because California red-legged frogs can become entangled and trapped in it. Instead, Caltrans will use alternative materials such as coconut coir matting or pacified hydroseeding compounds.
  - l. Vehicle and equipment speed will be limited to 20 miles per hour in unpaved portions of the action area.
  - m. No pets will be permitted in the action area.
  - n. For onsite storage of pipes and conduits and other materials that could provide shelter for California red-legged frogs, an open-top trailer will be used to elevate the materials above ground. This is intended to reduce the potential for animals to climb into the conduits and other materials.
25. Caltrans will provide a Funding Assurance Letter stating that sufficient funds for habitat compensation have been budgeted in the Interstate I-80/I-680/SR 12 Interchange Phase 1 Project Expenditure Authorization. The Funding Assurance Letter will be signed by the District Deputy Director of Project Management and the District Deputy Director of Environmental Planning and Engineering. The Funding Assurance Letter provides

evidence that Caltrans has allocated sufficient funding to implement the proposed compensation.

26. Land used for habitat compensation will include a Service-approved conservation easement. An approved ecologically-based conservation easement will include managed public access, a management plan, and an in-perpetuity endowment or other permanent non-wasting management fund based on a PAR-like property analysis. The management plan will include a description of the site, management needs (e.g. grazing plan, non-native vegetation and animal control, etc), when the management activities will be implemented, how often and to what level monitoring of the site will occur, and a action/contingency plan to address potential management issues.
27. Caltrans will provide a restoration and revegetation plan for each construction package to be reviewed and approved by the Service no later than sixty (60) calendar days prior to date of its initial groundbreaking of each construction package. The plan will include, but will not be limited to: schedule, methodology, a list of the seed mixes and container plants, plant material source, irrigation, maintenance schedule, monitoring program, success criteria, control of invasive, noxious weeds, and remediation and adaptive management. In addition, annual monitoring reports on the success of the plantings shall be provided to the Service following the completion for each construction package. The reports will be submitted on or before December 31 of each year monitoring is conducted.

The revegetation plan will include a photo monitoring plan. The plan will include, but is not limited, to the following:

- a. An adequate number of photo monitoring stations will be established to provide representative views of project restoration and construction activities. Stations will be located in areas that allow for unobstructed views and a field of vision of approximately 2000 feet, to the extent allowed by surrounding vegetative cover and topography. Each station will provide a representative panoramic view of the restoration footprint. Caltrans will ensure that photo monitoring stations numbers and locations are sufficient to document restoration success.
- b. Baseline photographs will be taken during the spring growing season prior to construction. Following the completion of ground disturbance, photo documentation will be conducted quarterly to document restoration relative to four seasons. Photo documentation will conclude when the Service has agreed that success criteria have been met.
- c. Photo monitoring station locations will be provided to the Service in an acceptable geographic format with the coordinate system identified.
- d. If the Service or the biological monitor(s) determines that additional monitoring stations are necessary, the locations will be added to the inventory of photo monitoring stations prior to the date of the next photo documentation.



- c. During each photo monitoring cycle all stations will be visited within a two day period.
  - f. At the conclusion of restoration, the acreage of restored areas will be tabulated and provided to the Service. The extent of restoration will be delineated with a handheld GPS device and a trackfile provided to the Service Representative.
28. Routine maintenance activities will be identified in the Restoration/Revegetation Plan. Maintained R-O-Ws may include routine maintenance activities that are short in duration, such as spraying and mowing. Specific restrictions may apply for the valley elderberry longhorn beetle, callippe silverspot butterfly, California red-legged frog, and the showy Indian clover.

### **Action Area**

The action area is defined in 50 CFR § 402.02, as “all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.” For the proposed action, the action area includes: (1) all lands associated with the approximately 258.14-acre construction footprint (of which 136.72 acres is existing hardscape) including roads (except for County roads, and State and Federal highways) and other areas accessed by project vehicles, and (2) lands within 1,000 feet of the construction footprint subjected to project-related lighting, noise, vibration, runoff, and fugitive dust.

### **Analytical Framework for the Jeopardy and Adverse Modification Analysis**

#### *Jeopardy Determination*

The following analysis relies on four components to support the jeopardy determination for the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog: (1) the *Status of the Species*, which evaluates the species’ range wide condition, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the species in the action area, the factors responsible for that condition, and the role of the action area in the species’ survival and recovery; (3) the *Effects of the Action*, which determines the direct and indirect effects of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and (4) *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the species.

In accordance with the implementing regulations for section 7 and Service policy, the jeopardy determination is made in the following manner: the effects of the proposed Federal action are evaluated in the context of the aggregate effects of all factors that have contributed to the species’ current status and, for non-Federal activities in the action area, those actions likely to affect the species in the future, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild.



The following analysis places an emphasis on using the range-wide survival and recovery needs of the species and the role of the action area in providing for those needs as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

#### *Adverse Modification Determination*

This Biological Opinion does not rely on the regulatory definition of “destruction or adverse modification” of critical habitat at 50 CFR §402.02. Instead, we have relied upon the statutory provisions of the Act to complete the following analysis with respect to critical habitat.

In accordance with policy and regulation, the adverse modification analysis in this Biological Opinion relies on four components: (1) the *Status of Critical Habitat*, which evaluates the range wide condition of designated critical habitat for Contra Costa goldfields and California red-legged frog in terms of PCEs, the factors responsible for that condition, and the intended recovery function of the critical habitat at the provincial and range-wide scale; (2) the *Environmental Baseline*, which evaluates the condition of the critical habitat in the action area, the factors responsible for that condition, and the recovery role of the critical habitat in the action area; (3) the *Effects of the Action*, which determines the direct and indirect effects of the proposed Federal action and the effects of any interrelated or interdependent activities on the PCEs and how that will influence the recovery role of affected critical habitat units; and (4) *Cumulative Effects* which evaluates the effects of future, non-Federal activities in the action area on the PCEs and how that will influence the recovery role of affected critical habitat units. For purposes of the adverse modification determination, the effects of the proposed Federal action on Contra Costa goldfields and California red-legged frog critical habitats are evaluated in the context of the range-wide condition of the critical habitat at the provincial and range-wide scales, taking into account any cumulative effects, to determine if the critical habitat range-wide would remain functional (or would retain the current ability for the PCEs to be functionally established in areas of currently unsuitable but capable habitat) to serve its intended recovery role for Contra Costa goldfields and the California red-legged frog.

The analysis in this Biological Opinion places an emphasis on using the intended range-wide recovery function of Contra Costa goldfields and California red-legged frog critical habitat and the role of the action area relative to that intended function as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the adverse modification determination.

#### **Status of the Species**

##### *Vernal Pool Fairy Shrimp*

Refer to the *Vernal Pool Fairy Shrimp 5- Year Review* for status and life history information (Service 2007a). This document can be downloaded from the world wide web at:  
[http://www.fws.gov/cno/es/images/Graphics/VPFS\\_5-yr%20review%20CNO%20FINAL%2027Sept07.pdf](http://www.fws.gov/cno/es/images/Graphics/VPFS_5-yr%20review%20CNO%20FINAL%2027Sept07.pdf)



*Vernal Pool Tadpole Shrimp*

Refer to the *Vernal Pool Tadpole Shrimp 5- Year Review* for status and life history information (Service 2007b). This document can be downloaded from the world wide web at:  
[http://www.fws.gov/cno/es/images/Graphics/VP%20Tadpole%20Shrimp\\_5%20yr%20review%20FINAL%20CNO%2027Sept07.pdf](http://www.fws.gov/cno/es/images/Graphics/VP%20Tadpole%20Shrimp_5%20yr%20review%20FINAL%20CNO%2027Sept07.pdf)

*Callippe Silverspot Butterfly*

Refer to the *Callippe Silverspot Butterfly 5- Year Review* for status and life history information (Service 2009). This document can be downloaded from the world wide web at:  
[http://ecos.fws.gov/docs/five\\_year\\_review/doc2518.pdf](http://ecos.fws.gov/docs/five_year_review/doc2518.pdf).

*Valley Elderberry Longhorn Beetle*

Refer to *Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus) 5-Year Review: Summary and Evaluation* (Service 2006b) for status and life history information. This document can be downloaded from the world wide web at:  
[http://ecos.fws.gov/docs/five\\_year\\_review/doc779.pdf](http://ecos.fws.gov/docs/five_year_review/doc779.pdf).

*California Red-Legged Frog*

The California red-legged frog was listed as a threatened species on May 23, 1996 (61 FR 25813). A recovery plan was published for the California red-legged frog on September 12, 2002 (Service 2002). A revised critical habitat was designated for this species on March 17, 2010 (75 FR 12816). At this time, the Service recognized the taxonomic change from *Rana aurora draytonii* to *Rana draytonii* (Shaffer *et al.* 2010).

The California red-legged frog is the largest native frog in the western United States (Wright and Wright 1949), ranging from 1.5 to 5.1 inches in length (Stebbins 2003). The abdomen and hind legs of adults are largely red, while the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish background color. Dorsal spots usually have light centers (Stebbins 2003), and dorsolateral folds are prominent on the back. Larvae (tadpoles) range from 0.6 to 3.1 inches in length, and the background color of the body is dark brown and yellow with darker spots (Storer 1925).

The historic range of the California red-legged frog extended from the vicinity of Elk Creek in Mendocino County, California, along the coast inland to the vicinity of Redding in Shasta County, California, and southward to northwestern Baja California, Mexico (Fellers 2005; Jennings and Hayes 1985; Hayes and Krempels 1986). The species was historically documented in 46 counties but the taxa now remains in 238 streams or drainages within 23 counties, representing a loss of 70 percent of its former range (Service 2002). California red-legged frogs are still locally abundant within portions of the San Francisco Bay area and the Central California Coast. Isolated populations have been documented in the Sierra Nevada, northern Coast, and northern Transverse Ranges. The species is believed to be extirpated from the



southern Transverse and Peninsular ranges, but is still present in Baja California, Mexico (CDFG 2011a).

California red-legged frogs predominately inhabit permanent water sources such as streams, lakes, marshes, natural and manmade ponds, and ephemeral drainages in valley bottoms and foothills up to 4,921 feet in elevation (Jennings and Hayes 1994, Bulger *et al.* 2003, Stebbins 2003). However, California red-legged frogs also have been found in ephemeral creeks and drainages and in ponds that may or may not have riparian vegetation. California red-legged frogs also can be found in disturbed areas such as channelized creeks and drainage ditches in urban and agricultural areas. For example, an adult California red-legged frog was observed in a shallow isolated pool on North Slough Creek in the American Canyon area of Napa County (Christine Gaber/PG&E personal communication with Chris Nagano/Service on October 22, 2008). This frog location was surrounded by vineyard development. Another adult California red-legged frog was observed under debris in an unpaved parking lot in a heavily industrialized area of Burlingame (Patrick Kobernus/Coast Ridge Ecology communication with Michelle Havens/Service on October 16, 2008). This Burlingame frog was likely utilizing a nearby drainage ditch. Caltrans also has discovered California red-legged frog adults, tadpoles, and egg masses within a storm drainage system within a major cloverleaf intersection of Millbrae Avenue and State Route 101 in a heavily developed area of San Mateo County (Caltrans 2007). The California red-legged frog has the potential to persist in disturbed areas as long as those locations provide at least one or more of their life history requirements.

California red-legged frogs typically breed between November and April, although earlier breeding records have been reported in southern localities. Breeding generally occurs in still or slow-moving water often associated with emergent vegetation, such as cattails, tules or overhanging willows (Storer 1925, Hayes and Jennings 1988). Female frogs deposit egg masses on emergent vegetation so that the egg mass floats on or near the surface of the water (Hayes and Miyamoto 1984).

Habitat includes nearly any area within 1 to 2 miles of a breeding site that stays moist and cool through the summer including vegetated areas with coyote brush, California blackberry thickets, and root masses associated with willow and California bay trees (Fellers 2005). Sheltering habitat for California red-legged frogs potentially includes all aquatic, riparian, and upland areas within the range of the species and includes any landscape feature that provides cover, such as animal burrows, boulders or rocks, organic debris such as downed trees or logs, and industrial debris. Agricultural features such as drains, watering troughs, spring boxes, abandoned sheds, or hay stacks may also be used. Incised stream channels with portions narrower and depths greater than 18 inches also may provide important summer sheltering habitat. Accessibility to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and can be a factor limiting frog population numbers and survival.

California red-legged frogs do not have a distinct breeding migration (Fellers 2005). Adults are often associated with permanent bodies of water. Some individuals remain at breeding sites year-round, while others disperse to neighboring water features. Dispersal distances are typically less than 0.5-mile, with a few individuals moving up to 1 to 2 miles (Fellers 2005). Movements are typically along riparian corridors, but some individuals, especially on rainy nights, move



directly from one site to another through normally inhospitable habitats, such as heavily grazed pastures or oak-grassland savannas (Fellers 2005).

In a study of California red-legged frog terrestrial activity in a mesic area of the Santa Cruz Mountains, Bulger *et al.* (2003) categorized terrestrial use as migratory and non-migratory. The latter occurred from one to several days and was associated with precipitation events. Migratory movements were characterized as the movement between aquatic sites and were most often associated with breeding activities. Bulger *et al.* (2003) reported that non-migrating frogs typically stayed within 200 feet of aquatic habitat 90 percent of the time and were most often associated with dense vegetative cover, i.e., California blackberry, poison oak and coyote brush. Dispersing frogs in northern Santa Cruz County traveled distances from 0.25-mile to more than 2 miles without apparent regard to topography, vegetation type, or riparian corridors (Bulger *et al.* 2003).

In a study of California red-legged frog terrestrial activity in a xeric environment in eastern Contra Costa County, Tatarian (2008) noted that the majority of frogs (57 percent) fitted with radio transmitters in the Round Valley study area stayed at their breeding pools, whereas 43 percent moved into adjacent upland habitat or to other aquatic sites. Her study reported a peak seasonal terrestrial movement occurring in the fall months associated with the first 0.2-inch of precipitation and tapering off into spring. Upland movement activities ranged from 3 to 233 feet, averaging 80 feet, and were associated with a variety of refugia including grass thatch, crevices, cow hoof prints, ground squirrel burrows at the base of trees or rocks, logs, and under man-made structures; others were associated with upland sites lacking refugia (Tatarian 2008). The majority of terrestrial movements lasted from one to four days; however, one adult female was reported to remain in upland habitat for 50 days (Tatarian 2008). Upland refugia closer to aquatic sites were used more often and were more commonly associated with areas exhibiting higher object cover, e.g., woody debris, rocks, and vegetative cover. Subterranean cover was not significantly different between occupied upland habitat and non-occupied upland habitat.

California red-legged frogs are often prolific breeders, laying their eggs during or shortly after large rainfall events in late winter and early spring (Hayes and Miyamoto 1984). Egg masses containing 2,000 to 5,000 eggs are attached to vegetation below the surface and hatch after six to 14 days (Storer 1925, Jennings and Hayes 1994). In coastal lagoons, the most significant mortality factor in the pre-hatching stage is water salinity (Jennings *et al.* 1992). Eggs exposed to salinity levels greater than 4.5 parts per thousand resulted in 100 percent mortality (Jennings and Hayes 1990). Increased siltation during the breeding season can cause asphyxiation of eggs and small larvae. Larvae undergo metamorphosis 3½ to seven months following hatching and reach sexual maturity two to three years of age (Storer 1925; Wright and Wright 1949; Jennings and Hayes 1985, 1990, 1994). Of the various life stages, larvae probably experience the highest mortality rates, with less than one percent of eggs laid reaching metamorphosis (Jennings *et al.* 1992). Under favorable conditions, California red-legged frogs may live eight to ten years (Jennings *et al.* 1992). Populations can fluctuate from year to year; favorable conditions allow the species to have extremely high rates of reproduction and thus produce large numbers of dispersing young and a concomitant increase in the number of occupied sites. In contrast, the animal may temporarily disappear from an area when conditions are stressful (e.g., during periods of drought, disease, etc.).



The diet of California red-legged frogs is highly variable and changes with the life history stage. The diet of the larvae is not well studied, but is likely similar to that of other ranid frogs, which feed on algae, diatoms, and detritus by grazing on the surface of rocks and vegetation (Fellers 2005; Kupferberg 1996a, 1996b, 1997). Hayes and Tennant (1985) analyzed the diets of California red-legged frogs from Cañada de la Gaviota in Santa Barbara County during the winter of 1981 and found invertebrates (comprising 42 taxa) to be the most common prey item consumed; however, they speculated that this was opportunistic and varied based on prey availability. They ascertained that larger frogs consumed larger prey and were recorded to have preyed on Pacific chorus frog, three-spined stickleback and, to a limited extent, California mice, which were abundant at the study site (Hayes and Tennant 1985, Fellers 2005). Although larger vertebrate prey was consumed less frequently, it represented over half of the prey mass eaten by larger frogs suggesting that such prey may play an energetically important role in their diets (Hayes and Tennant 1985). Juvenile and subadult/adult frogs varied in their feeding activity periods; juveniles fed for longer periods throughout the day and night, while subadult/adults fed nocturnally (Hayes and Tennant 1985). Juveniles were significantly less successful at capturing prey and all life history stages exhibited poor prey discrimination, feeding on several inanimate objects that moved through their field of view (Hayes and Tennant 1985).

The direction and type of habitat used by dispersing animals is especially important in fragmented environments (Forys and Humphrey 1996). Models of habitat patch geometry predict that individual animals will exit patches at more “permeable” areas (Buechner 1987; Stamps *et al.* 1987). A landscape corridor may increase the patch-edge permeability by extending patch habitat (La Polla and Barrett 1993), and allow individuals to move from one patch to another. The geometric and habitat features that constitute a “corridor” must be determined from the perspective of the animal (Forys and Humphrey 1996).

Because their habitats have been fragmented, many endangered and threatened species exist as metapopulations (Verboom and Apeldom 1990; Verboom *et al.* 1991). A metapopulation is a collection of spatially discrete subpopulations that are connected by the dispersal movements of the individuals (Levins 1970; Hanski 1991). For metapopulations of listed species, a prerequisite to recovery is determining if unoccupied habitat patches are vacant due to the attributes of the habitat patch (food, cover, and patch area) or due to patch context (distance of the patch to other patches and distance of the patch to other features). Subpopulations on patches with higher quality food and cover are more likely to persist because they can support more individuals. Large populations have less of a chance of extinction due to stochastic events (Gilpin and Soule 1986). Similarly, small patches will support fewer individuals, increasing the rate of extinction. Patches that are near occupied patches are more likely to be recolonized when local extinction occurs and may benefit from emigration of individuals via the “rescue” effect (Hanski 1982; Gotelli 1991, Holt 1993; Fahrig and Merriam 1985). For the metapopulation to persist, the rate of patches being colonized must exceed the rate of patches going extinct (Levins 1970). If some subpopulations go extinct regardless of patch context, recovery actions should be placed on patch attributes. Patches could be managed to increase the availability of food and/or cover

Movements and dispersal corridors likely are critical to California red-legged frog population dynamics, particularly because the animals likely currently persist as metapopulations with



disjunct population centers. Movement and dispersal corridors are important for alleviating over-crowding and intraspecific competition, and also they are important for facilitating the recolonization of areas where the animal has been extirpated. Movement between population centers maintains gene flow and reduced genetic isolation. Genetically isolated populations are at greater risk of deleterious genetic effects such as inbreeding, genetic drift, and founder effects. The survival of wildlife species in fragmented habitats may ultimately depend on their ability to move among patches to access necessary resources, retain genetic diversity, and maintain reproductive capacity within populations (Hilty and Merenlender 2004; Petit *et al.* 1995; Buza *et al.* 2000).

Most metapopulation or meta-population-like models of patchy populations do not directly include the effects of dispersal mortality on population dynamics (Hanski 1994; With and Crist 1995; Lindenmayer and Possingham 1996). Based on these models, it has become a widely held notion that more vagile species have a higher tolerance to habitat loss and fragmentation than less vagile species. But models that include dispersal mortality predict exactly the opposite: more vagile species should be more vulnerable to habitat loss and fragmentation because they are more susceptible to dispersal mortality (Fahrig 1998; Casagrandi and Gatto 1999). This prediction is supported by Gibbs (1998), who examined the presence-absence of five amphibian species across a gradient of habitat loss. He found that species with low dispersal rates are better able than more vagile species to persist in landscapes with low habitat cover. Gibbs (1998) postulated that the land between habitats serves as a demographic “drain” for many amphibians. Furthermore, Bonnet *et al.* (1999) found that snake species that frequently make long-distance movements have higher mortality rates than do sedentary species.

Habitat loss, non-native species introduction, and urban encroachment are the primary factors that have adversely affected the California red-legged frog throughout its range. Several researchers in central California have noted the decline and eventual local disappearance of California and northern red-legged frogs in systems supporting bullfrogs (Jennings and Hayes 1990; Twedt 1993), red swamp crayfish, signal crayfish, and several species of warm water fish including sunfish, goldfish, common carp, and mosquitofish (Moyle 1976; Barry 1992; Hunt 1993; Fisher and Schaffer 1996). This has been attributed to predation, competition, and reproduction interference. Twedt (1993) documented bullfrog predation of juvenile northern red-legged frogs (*Rana aurora*), and suggested that bullfrogs could prey on subadult California red-legged frogs as well. Bullfrogs may also have a competitive advantage over California red-legged frogs. For instance, bullfrogs are larger and possess more generalized food habits (Bury and Whelan 1984). In addition, bullfrogs have an extended breeding season (Storer 1933) during which an individual female can produce as many as 20,000 eggs (Emlen 1977). Furthermore, bullfrog larvae are unpalatable to predatory fish (Kruse and Francis 1977). Bullfrogs also interfere with California red-legged frog reproduction by eating adult male California red-legged frogs. Both California and northern red-legged frogs have been observed in amplexus (mounted on) with both male and female bullfrogs (Jennings and Hayes 1990; Twedt 1993; Jennings 1993). Thus bullfrogs are able to prey upon and out-compete California red-legged frogs, especially in sub-optimal habitat.

The urbanization of land within and adjacent to California red-legged frog habitat has also affected the threatened amphibian. These declines are attributed to channelization of riparian



areas, enclosure of the channels by urban development that blocks dispersal, and the introduction of predatory fishes and bullfrogs. Diseases may also pose a significant threat, although the specific effects of disease on the California red-legged frog are not known. Pathogens are suspected of causing global amphibian declines (Davidson *et al.* 2003). Chytridiomycosis and ranaviruses are a potential threat because these diseases have been found to adversely affect other amphibians, including the listed species (Davidson *et al.* 2003; Lips *et al.* 2006). Mao *et al.* (1999 cited in Fellers 2005) reported northern red-legged frogs infected with an iridovirus, which was also presented in sympatric threespine sticklebacks in northwestern California. Non-native species, such as bullfrogs and non-native tiger salamanders that live within the range of the California red-legged frog have been identified as potential carriers of these diseases (Garner *et al.* 2006). Humans can facilitate the spread of disease by encouraging the further introduction of non-native carriers and by acting as carriers themselves (i.e., contaminated boots, waders or fishing equipment). Human activities can also introduce stress by other means, such as habitat fragmentation, that results in the listed species being more susceptible to the effects of disease.

Negative effects to wildlife populations from roads and pavement may extend some distance from the actual road. The phenomenon can result from vehicle-related mortality, habitat degradation, noise and light pollution, and invasive exotic species. Forman and Deblinger (1998) described the area affected as the “road effect” zone. One study along a four-lane road in Massachusetts determined that this zone extended for an average of 980 feet to either side of the road for an average total zone width of approximately 1,970 feet. However, in some areas they detected an effect greater than 0.6-mile from the road. The road effect zone can also be subtle. Van der Zandt *et al.* (1980) reported that lapwings and black-tailed godwits feeding at 1,575 to 6,560 feet from roads were disturbed by passing vehicles. The heart rate, metabolic rate and energy expenditure of female bighorn sheep increases near roads (MacArthur *et al.* 1979). Trombulak and Frissell (2000) described another type of “road-zone” effect due to contaminants. Heavy metal concentrations from vehicle exhaust were greatest within 66 feet of roads and elevated levels of metals in soil and plants were detected at 660 feet of roads. The “road-zone” varies with habitat type and traffic volume. Based on responses by birds, Forman (2000) estimated the road-zone along primary roads of 1,000 feet in woodlands, 1,197 feet in grasslands, and 2,657 feet in natural lands near urban areas. Along secondary roads with lower traffic volumes, the effect zone was 656 feet. The road-zone with regard to California red-legged frogs has not been adequately investigated.

The necessity of moving between multiple habitats and breeding ponds means that many amphibian species, such as the California red-legged frog are especially vulnerable to roads and well-used large paved areas in the landscape. Amphibians appear especially vulnerable to traffic mortality because they readily attempt to cross roads, are small and slow-moving, and thus are not easily avoided by drivers (Carr and Fahrig 2001). Van Gelder (1973) and Cooke (1995) have examined the effect of roads on amphibians and found that because of their activity patterns, population structure, and preferred habitats, aquatic breeding amphibians are more vulnerable to traffic mortality than some other species. High-volume highways pose a nearly impenetrable barrier to amphibians and result in mortality to individual animals as well as significantly fragmenting habitat. Hels and Buchwald (2001) found that mortality rates for anurans on high traffic roads are higher than on low traffic roads. Vos and Chardon (1998) found a significant negative effect of road density on the occupation probability of ponds by the moor frog (*Rana*



*arvalis*) in the Netherlands. In addition, incidences of very large numbers of road-killed frogs are well documented (Ashley and Robinson 1996), and studies have shown strong population level effects of traffic density (Carr and Fahrig 2001) and high traffic roads on these amphibians (Van Gelder 1973; Vos and Chardon 1998). Most studies regularly count road mortalities from slow moving vehicles (Hansen 1982; Rosen and Lowe 1994; Drews 1995; Mallick *et al.* 1998) or by foot (Munguira and Thomas 1992). These studies assume that every victim is observed, which may be true for large conspicuous mammals, but may be an incorrect assumption for small animals, such as the California red-legged frog. The carcasses of small soft-bodied amphibians like frogs are quickly decimated under passing tires and are less likely to be detected by researchers and are unlikely to persist for more than a day (Santos *et al.* 2011).

The recovery plan for the California red-legged frog identifies eight recovery units (Service 2002). The establishment of these recovery units is based on the determination that various regional areas of the species' range are essential to its survival and recovery. These recovery units are delineated by major watershed boundaries as defined by USGS hydrologic units and the limits of its range. The goal of the recovery plan is to protect the long-term viability of all extant populations within each recovery unit. Within each recovery unit, core areas have been delineated and represent contiguous areas of moderate to high California red-legged frog densities that are relatively free of exotic species such as bullfrogs. The goal of designating core areas is to protect metapopulations. Thus when combined with suitable dispersal habitat, will allow for the long term viability within existing populations. This management strategy will allow for the recolonization of habitats within and adjacent to core areas that are naturally subjected to periodic localized extinctions, thus assuring the long-term survival and recovery of California red-legged frogs.

## **Environmental Baseline**

### *Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp*

The majority of the action area, including the eastern end of the Business Center Drive Extension is located within the Solano-Colusa vernal pool region, which was designated based largely on presence of endemic vernal pool species identified in the Service's *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon* (Recovery Plan) (Service 2005a). The vernal pool fairy shrimp and vernal pool tadpole shrimp have been adversely affected by development and modification of vernal pool and grassland habitat within the Solano-Colusa vernal pool region and are present in much of the undeveloped areas within the region.

Most of the seasonal wetland habitat in Solano County has not been surveyed for listed branchiopods. Of the 23 vernal pool fairy shrimp records in Solano County, the CNDDB includes at least three occurrences within 5 miles of the action area (CDFG 2011a, 2011b). Three of the 30 records for vernal pool tadpole shrimp occur within 5 miles of the action area (CDFG 2011a, 2011b).

Although Caltrans did not perform protocol-level surveys for listed branchiopods, they identified at least 14 seasonal wetland features within 250 feet of the construction footprint that provide habitat for vernal pool fairy shrimp and vernal pool tadpole shrimp. According to Caltrans, half



of these habitat features would be directly affected by the proposed project.

The Service has determined that the vernal pool fairy shrimp and vernal pool tadpole shrimp are likely to occur within the action area due to the presence of appropriate seasonal wetland habitat within the action area such as impervious soils, the seasonal hydroperiod, and topographical features that provide the necessary habitat attributes to support one or all of these species' life history stages. Caltrans identified 14 seasonal wetland features within the action area.

Furthermore, wading birds, that visit this and other nearby occupied wetlands, ponds and swales to forage or drink water, act as vectors to transport cysts or adults from one pond to another through their feces or on their feathers or legs. For these reasons, the Service has determined that it is reasonable to conclude that vernal pool fairy shrimp and vernal pool tadpole shrimp to inhabit the identified seasonal wetlands within 250 feet of the construction footprint.

### *Callippe Silverspot Butterfly*

Much of the undeveloped land in Solano County is privately owned and knowledge of the current distribution of callippe silverspot butterfly in the county's remaining areas of potential habitat is limited.

Reported records of the callippe silverspot butterfly in Solano County are located in the hills between Vallejo and Cordelia and northward into Jameson Canyon (SCWA 2009; CDFG 2011a, 2011b). Most of the current knowledge in Solano County is derived from SLT's Swett and King Ranch properties south of I-80 where management activities are being proposed and implemented to enhance callippe silverspot butterfly habitat (SCWA 2009; Service personal communication with SLT 2011).

As defined by the Solano Draft HCP's *Callippe Silverspot Butterfly Conservation Area* the likely distribution of the callippe silverspot butterfly in Solano County extends from Vallejo to at least 4 to 5 miles north of I-80 towards Green Valley and includes the rolling hills south and north of Jameson Canyon Road (SCWA 2009). This conservation area encompasses the proposed project footprint for the Business Center Drive Extension. The 3,300-acre conservation area includes core silverspot habitat and connectivity between these core areas. Approximately 7,870 acres of the conservation area is currently managed as open space by SLT and the Greater Vallejo Recreation District and an additional 660 acres has been preserved as "mitigation lands" (SCWA 2009). These open space lands are subject to varying degrees of public access for the purpose of recreation. Funding for additional surveys, monitoring, management, and enhancement of callippe silverspot butterfly habitat within the conservation area has been limited and inconsistent.

The draft Solano HCP acknowledges that steep slopes are important to the life history of the callippe silverspot butterfly (SCWA 2009). Of the approximately 1,560 acres of callippe silverspot butterfly habitat identified within the urban growth zone in the draft HCP, it was estimated that at least 350 acres of those would be conserved for the species because the slopes were too steep to develop. According to the Solano draft HCP, the cities of Vallejo and Fairfield have adopted restrictions in their general plans that limit development on slopes greater than



30 percent. The analysis in the draft HCP assumes that development would be avoided on all slopes greater than 30 percent and approximately half of those greater than 20 percent. A key element to callippe silverspot butterfly occupation is the distribution of their larval host plant, Johnny jump-up. This perennial violet is found throughout much of the grassland and oak woodlands of coastal California but little is known about its distribution within Solano County. Silverspot butterflies may rely on Johnny jump-up stands of a few to several acres. The annual densities of this rhizomous herb on the King and Swett Ranches is highly variable (Service personal communication with SLT 2011) which is likely true throughout the *Callippe Silverspot Conservation Area*. In 2004, Monk & Associates (Caltrans 2011) found two previously unrecorded Johnny jump-up stands immediately adjacent to the construction footprint for the proposed Business Center Drive Extension. Caltrans was still able to observe a violet flower in 2011 when they attempted to follow-up on the Monk & Associates 2004 observations. However, the investigation was conducted after the plant's prime blooming period at the King/Swett Ranches reference stands (May 17, 2011 Memo from ICF International to Caltrans). Monk & Associates' 2004 observation confirmed that the larval host plant occurs within the conservation area north of I-80 and there are at least two stands adjacent to the proposed action area. Much of the proposed construction footprint for the Business Center Drive Extension is located on eastern-facing slopes. Johnny jump-ups appear to remain in bloom longer on eastern-facing slopes which likely increase the potential for larvae to mature into adulthood (SCWA 2009).

Adult callippe silverspot butterflies are less limited in their use of nectar plants. They are known to utilize native and exotic flowers depending upon availability. The butterflies show particular preference for California buckeye, coyote wildmint, and various thistles within the King and Swett Ranches (personal communication with SLT, 2011). California buckeye occurs within the various riparian areas north of I-80 and along Jameson Canyon Creek. ICF International reported numerous thistle and other adult silverspot butterfly nectar plants in the proposed Business Center Drive Extension area in May 2011 (May 17, 2011 Memo from ICF International to Caltrans).

The *Callippe Silverspot Butterfly Conservation Area* is characterized by rolling hills associated with silverspot butterfly "hill-topping" breeding behavior. Adult butterflies congregate on ridgelines and hilltops for breeding purposes and adult males will defend territories along these topographical features. The majority of the proposed construction footprint for the Business Center Drive Extension includes these associated topographical features.

Caltrans did not conduct surveys for callippe silverspot butterfly but Monk & Associates identified two *Viola* populations during general biological surveys for a former Business Center Drive Extension alignment. Monk & Associates mapped *Viola* stands approximately 20 feet south and 300 feet north of the construction footprint. Monk & Associates did not indicate how many violets they observed in each population. Caltrans was unable to successfully monitor the *Viola* populations following the 2004 observations. In addition to finding the larval host plant, Caltrans also identified numerous adult nectar plants throughout the area.

The Service believes that the callippe silverspot butterfly is reasonably certain to occur within the action area because: (1) it is located within the species' range; and (2) larval host plants, adult nectar plants, and topographical breeding habitat features are located within and/or adjacent



to the proposed construction footprint.

### *Valley Elderberry Longhorn Beetle*

The action area is located within the current range of the valley elderberry longhorn beetle. There are at least five known occurrences of valley elderberry longhorn beetle within 5 miles of the action area (CDFG 2011a, 2011b). The draft Solano HCP states that any elderberry shrub in Solano County has the potential to support the valley elderberry longhorn beetle even though a specific plant may not show evidence of beetle use (SCWA 2009). Caltrans identified the listed beetle's host plant, the elderberry shrub, in the action area as potential habitat (Caltrans 2011). According to the BA, ten elderberry shrubs will be directly affected by the project and will be removed and transplanted. Caltrans found a potential valley elderberry longhorn beetle exit hole in two of the shrubs with stems 1 inch or greater in diameter at ground level. Therefore, the Service has determined that the valley elderberry longhorn beetle is reasonably certain to occur within the action area because of the biology and ecology of the animal, and the presence of suitable habitat.

### *California Red-Legged Frog*

The entirety of the proposed project is located within the species' range and current distribution. The proposed project cuts through a mosaic of industrial, residential, agricultural, fallow, and open space land uses, representing a range of highly modified and degraded to high quality California red-legged frog habitat. The alignment crosses and is adjacent to several creeks (Jameson Canyon Creek, Dan Wilson Creek, Suisun Creek, Ledgewood Creek, and Green Valley Creek), numerous constructed drainage features, and perennial and seasonal ponds and marshes that provide breeding and non-breeding aquatic habitat for the California red-legged frog. Riparian vegetation along creeks and drainages and landscape vegetation in the action area provide valuable refuge, forage, and dispersal habitat for red-legged frogs. Upland grassland areas with rodent burrows and other cover sites along constructed drainage features, in fallow, and grazed fields also provide refuge, forage, and dispersal habitat for the species.

The western portion of the action area, including the Business Center Drive Extension, is within and bisects Core Area #15 (Jameson Canyon-Lower Napa River) of the California red-legged frog Recovery Unit 3 (North Coast and North San Francisco Bay) (Service 2002). The conservation needs for the Jameson Canyon-Lower Napa River core area are: (1) protecting existing populations from current and future urbanization; (2) create and manage alternative breeding habitats; and (3) protecting dispersal corridors. The Jameson Canyon-Lower Napa River Core Area is described in the recovery plan as an important source population for the species.

The Business Center Drive Extension bisects the southeastern quarter of the SOL-2 California red-legged frog designated critical habitat unit (Jameson Canyon Unit). SOL-2 is considered essential for the California red-legged frog because it provides connectivity from Napa County south to unit SOL-3 (American Canyon Unit) which occupies a wedge of habitat located between Jameson Canyon Road and Interstate 80. Critical habitat unit SOL-1 (the Sky Valley Unit) is the southernmost unit in Solano County and extends south to Suisun Bay. The connectivity function



of the three Solano County units is dependent upon maintaining red-legged frog passage across I-80 and Jameson Canyon Road (SR 12W). The construction footprint also enters the eastern corner of SOL-3 at the proposed intersection of the Business Center Drive/Redtop Road and I-80.

The *California Red-Legged Frog Conservation Strategy* in the draft Solano HCP represents the most complete regional scientific data and analysis for the California red-legged frog in Solano County (SCWA 2009). The western portion of the construction footprint, beginning at the SR 12W/I-80 intersection, is located within the *California Red-Legged Frog Conservation Area* defined in the draft HCP. According to the draft HCP analysis, the existing Jameson Canyon Road and Interstate 80 create barriers between the SOL-1, -2, and -3 critical habitat units and “severely restrict or eliminate the natural dispersal and migratory movements of individuals between these three blocks of habitat, reducing the resiliency of populations and limiting genetic diversity.” One of the objectives of the draft HCP is to conserve 20 percent of the historic range of the California red-legged frog within Solano County which amounts to approximately 99 percent of the Jameson Canyon-Lower Napa River core recovery area.

Relatively little is known about the California red-legged frog population in Solano County. Much of the red-leg frog habitat in Solano County occurs on private land and has not been subject to protocol-level or other surveys. As directed by the draft Solano HCP, regional surveys will be conducted for California red-legged frogs within the Jameson Canyon-Lower Napa River Core Recovery Area within two years of adopting the final HCP and will continue every five years for the life of the HCP (SCWA 2009). The first California red-legged frog CNDDDB record for Solano County was not recorded until 1993 (SCWA 2009). There are only two reported observations of the species in the SOL-2 critical habitat unit and both records are the result of surveys conducted by Monk & Associates for the former alignment of the Business Center Drive Extension (Caltrans 2011). The records are located between the proposed Business Center Drive Extension and I-80. One record includes adult and juvenile red-legged frogs found approximately 400 feet from the construction footprint in a plunge pool of an ephemeral drainage. The second record includes adult frogs and tadpoles in Mangle’s Pond, approximately 300 feet north of the construction footprint and south of the Business Center Drive Extension. The CNDDDB record identified red-legged frog breeding on the Mangels’ Property. The Mangels’ pond is likely the primary breeding pond within the SOL-2 California red-legged frog critical habitat unit. There are at least 13 other California red-legged frog occurrences reported to the CNDDDB within 1 to 5 miles from the construction footprint (CDFG 2011a, 2011b).

Caltrans did not conduct standardized or protocol-level frog or other wildlife surveys in the action area or a wildlife movement analysis to support their baseline analysis for the project. Due to limited access, Caltrans and the Service used aerial photography and field observations from available access locations to independently assess habitat throughout the action area vicinity.

In addition to the Mangels’ Pond, Caltrans determined that the marsh immediately south of the Mangels’ Pond is potential red-legged frog breeding habitat. The southern edge of this marsh is within the construction footprint for work occurring at the SR 12W/I-80 interchange. Caltrans also identified a marsh immediately north of Green Valley Creek and I-80 as potential breeding



habitat.

There are numerous barriers and impediments to California red-legged frog movement in the action area vicinity. Existing roads, business, and other development fragments the landscape and prevent or encumber access between aquatic and upland habitat for foraging, movement, dispersal, refuge, and breeding. SR 12, I-80, I-680, and surrounding surface streets do not include barriers to exclude red-legged frogs from the roadway or direct them towards safe undercrossings. Frogs that attempt to cross these roads risk mortality due to vehicle collision and exposure.

The land west of I-80, north and south of SR 12W is primarily open grassland for grazing, with interspersed ranches and vineyards. This area is characterized by large expanses of rolling hills with ephemeral drainages, riparian corridors, stock ponds, and agricultural basins. Critical habitat units SOL-2 and SOL-3 are found within these contiguous blocks of habitat.

The Service believes that the California red-legged frog is reasonably certain to occur within the action area because: (1) it is located within the species' range and current distribution; (2) suitable aquatic, riparian, and upland California red-legged frog habitat intersect the action area in multiple locations; (3) the construction footprint is immediately adjacent to recent California red-legged frog observations; (4) the project is within the California Red-Legged Frog Conservation Area identified in the draft Solano HCP (SCWA 2009); (5) the project will construct a linear barrier between a recorded breeding pond and adjacent upland habitat; (6) all the elements needed to support the species' life history are located within the construction footprint; and (6) the biology and ecology of the animal, especially the ability of adults to move considerable distances.

### **Critical Habitat Status and Baseline**

Critical habitat is defined in Section 3 of the Act as: (1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (a) essential to the conservation of the species and (b) that may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. In determining which areas to designate as critical habitat, the Service considers those physical and biological features that are essential to a species' conservation and that may require special management considerations or protection (50 CFR 424.12(b)). The Service is required to list the known Primary Constituent Elements (PCE's) together with the critical habitat description. Such physical and biological features include, but are not limited to, the following:

- 1 Space for individual and population growth, and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;



4. Sites for breeding, reproduction, rearing of offspring, or dispersal; and
5. Generally, habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

#### *Contra Costa Goldfields Critical Habitat*

The Service designated 14,730 acres of critical habitat for Contra Costa goldfields in 2005 (Service 2005b). In determining which areas to designate as critical habitat, the Service considers those physical and biological features (PCEs) that are essential to the conservation of the species, and that may require special management considerations and protections (50 CFR §424.14).

Critical habitat PCEs for goldfields are the habitat components that provide:

1. Topographic features characterized by isolated mound and intermound complex within a matrix of surrounding uplands that result in continuously, or intermittently, flowing surface water in the depressional features including swales connecting the pools, providing for dispersal and promoting hydroperiods of adequate length in the pools; and
2. Depressional features including isolated vernal pools with underlying restrictive soil layers that become inundated during winter rains and that continuously hold water or whose soils are saturated for a period long enough to promote germination, flowering, and seed production of predominantly annual native wetland species and typically exclude both native and non-native upland plant species in all but the driest years. As these features are inundated on a seasonal basis, they do not promote the development of obligate wetland vegetation habitats typical of permanently flooded emergent wetlands

The proposed project includes direct effects to 3.83 acres of Contra Costa goldfields critical habitat Unit 5B. This unit encompasses 736.72 acres and is essential to the conservation of the species because it is needed to maintain the current geographic and ecological distribution of the species. The project area lies along the northern boundary of Unit 5B whose boundary is defined by SR 12E. The action area parallels the existing SR 12E and the intrusion into Unit 5B is primarily limited to the existing SR 12E road embankment sloping down to the Gentry Suisun wetland.

#### *California Red-Legged Frog Critical Habitat*

The Service designated critical habitat for the California red-legged frog on April 13, 2006 (71 FR 19244) (Service 2006a) and a revised designation to the critical habitat was published on March 17, 2010 (75 FR 12816) (Service 2010).

The PCE's defined for the California red-legged frog provide aquatic habitat for breeding and non-breeding activities and upland habitat for shelter, foraging, predator avoidance, and dispersal across its range. The PCE's and, therefore, the resulting physical and biological features essential for the conservation of the species were determined from studies of California red-



legged frog ecology. Based on the above needs and our current knowledge of the life history, biology, and ecology of the species, and the habitat requirements for sustaining the essential life-history functions of the species, the Service determined that the PCE's essential to the conservation of the California red-legged frog are:

1. Aquatic Breeding Habitat. Standing bodies of fresh water (with salinities less than 7.0 parts per thousand), including: natural and manmade (e.g., stock) ponds, slow-moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years.
2. Non-Breeding Aquatic Habitat. Freshwater and wetted riparian habitats, as described above, that may not hold water long enough for the subspecies to hatch and complete its aquatic life cycle but that do provide for shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult California red-legged frogs. Other wetland habitats that would be considered to meet these elements include, but are not limited to: plunge pools within intermittent creeks; seeps; quiet water refugia during high water flows; and springs of sufficient flow to withstand the summer dry period.
3. Upland Habitat. Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to a distance of 1 mile in most cases and comprised of various vegetational series such as grasslands, woodlands, wetland, or riparian plant species that provide the frog shelter, forage, and predator avoidance. Upland features are also essential in that they are needed to maintain the hydrologic, geographic, topographic, ecological, and edaphic features that support and surround the wetland or riparian habitat. These upland features contribute to the filling and drying of the wetland or riparian habitat and are responsible for maintaining suitable periods of pool inundation for larval frogs and their food sources, and provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat should include structural features such as boulders, rocks and organic debris (e.g., downed trees, logs), as well as small mammal burrows and moist leaf litter.
4. Dispersal Habitat. Accessible upland or riparian dispersal habitat within designated units and between occupied locations within a minimum of 1 mile of each other that allow for movement between such sites. Dispersal habitat includes various natural habitats and altered habitats such as agricultural fields, which do not contain barriers (e.g., heavily traveled road without bridges or culverts) to dispersal. Dispersal habitat does not include moderate- to high-density urban or industrial developments with large expanses of asphalt or concrete, nor does it include large reservoirs over 50 acres in size, or other areas that do not contain those features identified by PCE's 1, 2, or 3 as essential to the conservation of the subspecies.

With the revised designation of critical habitat, the Service intends to conserve the geographic areas containing the physical and biological features that are essential to the conservation of the species, through the identification of the appropriate quantity and spatial arrangement of the



PCE's sufficient to support the life-history functions of the species. Because not all life-history functions require all the PCE's, not all areas designated as critical habitat will contain all the PCE's. Refer to the final designation of critical habitat for California red-legged frog for additional information (75 FR 12816).

The action area is within critical habitat units SOL-2 and SOL-3. The proposed action will directly affect 12.75 acres of SOL-2 and 0.46 acre of SOL-3.

SOL-2 comprises approximately 3,360 acres in southwestern Solano County and a portion of extreme southeastern Napa County, south of I-80 and west of I-680. SOL-2 is essential for the conservation of the species because it provides connectivity to adjacent units to the south in the interior Coast Range north of the Suisun Bay and is expected to prevent further fragmentation of habitat in this portion of the species' range. The unit contains high-quality permanent and ephemeral aquatic habitats (PCE 1 and PCE 2) consisting of stream and plunge pools as well as large freshwater marsh surrounded by open grassland, willow, and oak that provide for breeding, and upland areas (PCE 3 and PCE 4) for dispersal, shelter, and foraging. The unit consists entirely of private land.

The physical and biological features essential to the conservation of California red-legged frog in the SOL-2 unit may require special management considerations or protection due to nonnative animal species, over grazing of habitat, urbanization, habitat alteration from invasive plant species, and recreational use which may alter aquatic or upland habitats and thereby result in the direct or indirect loss of egg masses or adults due to habitat modification and predation.

SOL-3 comprises approximately 4,597 acres in southwestern Solano County and a portion of extreme southeastern Napa County, north of I-80 and south of SR 12W. The unit contains high-quality permanent and ephemeral aquatic habitats (PCE 1 and PCE 2), consisting of pools, stream, and spring habitat surrounded by riparian tree species and annual grasslands that provide for breeding, and upland areas for dispersal, shelter, and foraging (PCE 3 and PCE 4). The designation of this unit was expected to prevent further fragmentation of habitat in this portion of the species' range and provides connectivity to other units farther north and south in the interior Coast Range north of the Suisun Bay. The unit consists of 1,087 acres of local nonprofit ownership and 3,510 acres of private land.

The physical and biological features essential to the conservation of California red-legged frog in the SOL-3 unit may require special management considerations or protection due to overgrazing of aquatic and riparian habitats, and loss and alteration of habitat due to urbanization, which may alter or eliminate aquatic or upland habitats and thereby result in the direct or indirect loss of egg masses or adults.

### **Effects of the Proposed Action**

The DEIR/EIS (Caltrans 2010) notes that a HCP has been prepared for Solano County. The draft Solano HCP is based on a conservation strategy that has been developed for a number of species, including the vernal pool fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, callippe silverspot butterfly, the Central Valley Distinct Population Segment of the



California tiger salamander, and California red-legged frog (SCWA 2009). The participants in this strategy include the cities of Vallejo, Fairfield, Suisun City, and the County of Solano. The goal of the conservation strategy is to establish a framework for complying with the Federal and State endangered species acts while accommodating future urban growth, development of infrastructure, and on-going operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken under the permitting authority of the strategy participants within Solano County over the next 30 years. The amount and type of loss and destruction of habitat and the concomitant effects on the covered species is based on a comprehensive analysis of the biology and ecology of the taxa, amount and location of habitat types, and mitigation measures that are necessary to mitigate the adverse effects. The implementation of large scale projects that are not consistent with the strategy, specifically the type, amount, location and in-perpetuity management of appropriate habitat, likely will compromise the ability of the strategy to meet the conservation requirements of the species.

*Vernal Pool Fairy Shrimp/ Vernal Pool Tadpole Shrimp*

According to Caltrans, construction of the proposed project will result in the loss of 1.45 acres - acre of seasonal wetland habitat suitable for vernal pool fairy shrimp and vernal pool tadpole shrimp (Caltrans 2010). All vernal pool crustaceans occupying the 1.45 acres will be killed due to earth-moving activities and permanent filling of seasonal wetland habitat.

Indirect effects to 0.26 acre of vernal pool crustacean habitat will likely result from changes in hydrology or degradation of water quality resulting from upstream construction activities. The biota of vernal pools and swales can change when the hydrologic regime is altered and small changes can have deleterious effects on entire populations of vernal pool crustaceans (Bauder 1986, 1987). Survival of aquatic organisms like vernal pool fairy shrimp and vernal pool tadpole shrimp is directly linked to the water regime of their habitat (Zedler 1987). Although vernal pool hydrology is driven by the input of precipitation, water input to vernal pool basins also occurs from surface and subsurface flow from the swale and upland portions of the complex (Zedler 1987, Hanes *et al.* 1990, Hanes and Stromberg 1998). Surface flow through the swale portion of the complex allows vernal pool species to move directly from one vernal pool to another. Upland areas are a critical component of vernal pool hydrology because they directly influence the rate of vernal pool filling, the length of the inundation period, and the rate of vernal pool drying (Zedler 1987; Hanes and Stromberg 1998).

The timing, frequency, and duration of inundation are critical to the survival of vernal pool species. Alterations of the hydrology can be particularly harmful to vernal pool crustaceans due to premature pool dry-down before the life cycles of the species are completed, preventing reproduction and disrupting gene flow. Also longer periods of inundation and/or changes in water depth could effectively change seasonal wetland functions (*e.g.*, change from vernal pool to perennial/permanent wetlands). Therefore, construction activities within vernal pool areas will result in the decline of vernal pool crustaceans, including these two listed species.

Caltrans proposes to install and properly maintain erosion control (including dust control) and water quality protection measures that will minimize downstream effects on seasonal wetlands and listed branchiopods that occupy them.



The proposed landscape and habitat restoration is important in minimizing the indirect effects to seasonal wetland habitat and the surrounding uplands. However, restoration of hydrological conditions linked to vernal pools may be difficult if not impossible to achieve in areas such as the proposed Business Center Drive Extension where a dramatic cut will be made through the rolling topography in order to achieve an acceptable road grade. Removal of topographical features will also remove watershed and other functions that influence the inundation and character of the seasonal wetlands within at least 250 feet of the construction footprint.

Caltrans proposal to compensate for permanent and temporal habitat loss with in-perpetuity preservation of 1.71 acres and restoration of 1.45 acres of vernal pool fairy shrimp and vernal pool tadpole shrimp habitat in Solano County will likely offset the adverse effects of the project and provide a benefit for the species.

Conservation measures proposed along SR 12E, including the work window, retaining wall, erosion control and stormwater protection, off-limits fencing, and biological monitoring are likely to be effective in minimizing adverse effects to listed branchiopod habitat in the Gentry Suisun wetlands.

#### *Callippe Silverspot Butterfly*

The proposed project will result in the permanent loss of 38.82 acres of callippe silverspot butterfly habitat due to construction of the Business Center Drive Extension from approximately 500 feet west of the existing western terminus of Business Center Drive to the existing Red Top Road/1-80 Intersection as callippe silverspot habitat. Establishment of this new road will require extensive grading and recontouring of rolling grasslands that provide topographical features important for callippe silverspot butterfly hill-topping breeding behavior, foraging, and possible larval development. Construction of the road will result in replacement of butterfly habitat with hardscape and maintained ROW that will likely be inhospitable for the listed butterfly. In addition to the harm and harassment associated with the destruction of callippe silverspot butterfly habitat, the project is also likely to result in effects associated with habitat fragmentation.

Construction of the Business Center Drive Extension will also result in the temporary loss of 19.32 acres of callippe silverspot butterfly habitat. This habitat will be temporarily lost due to construction access, staging, and recontouring for borrow material. Successful restoration of temporarily disturbed areas with a grassland seed mix that includes callippe silverspot butterfly nectar plants is likely to limit the habitat loss to less than one year following the initial ground disturbance.

The construction of Business Center Drive Extension will result in the loss of hilltops and ridgelines likely utilized by the callippe silverspot butterfly for reproduction. The adults of this animal frequently engage in hilltopping (Murphy and Weiss undated; Shields 1967; Thomas Reid Associates 1982), which is the behavior where adults congregate on hilltops for the purpose of locating mates. Males are more likely than females to spend time on hilltops. In a study at San Bruno Mountain in San Mateo County, 62 percent of male callippe silverspot butterflies were caught on hilltops, while only 48 percent of females were caught on hilltops (Thomas Reid



Associates 1982). After mating, females spend less time hilltopping, and more time searching for oviposition sites and nectar sources. Males tended to utilize hilltops throughout their lifespans (Thomas Reid Associates 1982). Males actively patrol hilltops and ridgelines searching for females. Females are mated almost immediately upon emergence from pupae, because males emerge first and doggedly pursue females (Mattoon et al. 1971).

Hilltops and ridgelines play an important role in callippe silverspot butterfly breeding behavior. The importance of hilltops may vary with population density; at high population levels, males may patrol below hilltops, and congregate on them during periods of low population levels (Shields 1967; Baughman et al. 1988). Hilltops and ridge lines should be considered integral components of callippe silverspot butterfly habitat. Losing hilltops from habitat areas likely decreases mate location and genetic mixing over the long-term.

The callippe silverspot butterfly conservation strategy in the draft Solano HCP did not consider the adverse impacts associated with activities such as the proposed 1.3-mile Business Center Drive Extension from the western terminus of Business Center Drive to I-80. Construction of this road extension will involve the removal of topographical features with slopes greater than 20 or 30 percent. These slopes were identified in the draft Solano HCP as important butterfly hilltop habitat that would be conserved for the species. Based on topographical maps it appears that the majority of the 58.14 acres of callippe silverspot habitat that will be directly affected by the project is characterized by slopes that could be used by the callippe silverspot butterfly for breeding purposes.

Clearing and grading may result in temporary adverse effects to some or all the life history stages through crushing or burial during larval diapauses as this process often occurs in leaf litter at the base of the plant. The caterpillars are small and difficult to find. This inability to detect caterpillars prevents any form of site survey or capture and hold of caterpillars during construction.

Use of heavy earthmoving equipment and other ground-disturbing activity resulting in habitat destruction, dust, and prolonged disturbance will likely cause adult butterflies both in and near the construction footprint to flee the area, especially during the approximate mid-May to mid-July flight season for adult butterflies. These disturbances could disrupt essential behaviors such as reproduction and foraging which could lead to adverse effects such as decreased reproductive success due to moving to less suitable areas or increased difficulty in locating a mate.

Adult callippe silverspot butterflies are strong fliers. After road construction is complete, butterflies would likely avoid collision with vehicles by flying over road cuts for the Business Center Drive Extension. However, they would be susceptible to harm and mortality when crossing in areas where habitat on either side of the new road is at or near grade with the road. Road mortality can result in significant reliable loss of adult butterflies over time.

Construction and grading activities may produce dust which can interfere with the respiration and foraging of active adults. Insects breathe via spiracles and inhalation of small particles, such as dust, could prevent their respiration and result in their asphyxiation. Ehrlich (1984) speculated that the decline of the common alpine butterfly in the upper East River drainage of



Gunnison County, Colorado, was the result of an increase in dust from increased vehicular traffic.

*Viola* populations have been recorded adjacent to the construction footprint but the extent of the populations is not well known. There have been no additional larval host plant surveys since the reconnaissance-level surveys conducted in 2003 and 2004. The food plants of the callippe silverspot butterfly adult nectar plants could be eliminated by construction. Destruction of larval host and larval and adult nectar plants would result in a decrease in the amount of habitat available for reproduction and development of immature butterflies.

Successful propagation and establishment of *Viola* has not been successful to date. Therefore loss of larval host plants cannot be minimized through restoration alone. Successful establishment of adult food plants is feasible and will be an integral part of Caltrans' restoration plan.

Another potential effect of the proposed project on the listed butterfly is the elimination of their habitat due to non-native vegetation invading areas where restoration has not been implemented or is inadequate. Soil disturbance, such as that associated with project associated activities, facilitates the invasion of areas by non-native species. Increased human activity introduces new non-native species. These plants could eventually displace or otherwise out-compete the plants which are depended upon by the callippe silverspot butterfly.

The Business Center Drive Extension construction footprint is immediately adjacent to two previously identified *Viola* populations. The proximity of construction activities may deter livestock grazing in these locations and temporary and permanent road ROW fencing will exclude livestock from accessing these areas. The removal of livestock grazing pressure from patches of vegetation supporting *Viola* could result in a reduction in the abundance and distribution of this plant. This in turn could result in a reduction in available habitat for the early stages of callippe silverspot butterfly.

Caltrans' proposal to compensate for permanent and temporal habitat loss with in-perpetuity preservation or restoration of 126.12 estimated acres of callippe silverspot butterfly habitat in Solano County. This will likely offset the adverse effects of the project and provide a benefit for the species. This habitat will be permanently protected and a management plan will be implemented which will aid the species.

#### *Valley Elderberry Longhorn Beetle*

The proposed project will directly affect ten elderberry shrubs that are suitable habitat for the valley elderberry longhorn beetle within the proposed project area. Transplantation of the elderberry shrubs may cause them to die, experience stress, or become unhealthy due to changes in soil, hydrology, microclimate, or associated vegetation. This may reduce their quality as habitat for the valley elderberry longhorn beetle, or impair their production of habitat-quality stems in the future. Branches containing larvae may be cut, broken, or crushed as a result of the transplantation process. The actions described in the *Conservation Measure 23* will reduce, but not eliminate, the potential for these effects. Additionally, the proposed project will ultimately increase the value of the valley elderberry longhorn beetle habitat in the area chosen for



transplantation.

*California Red-Legged Frog*

The proposed project will likely adversely affect the threatened California red-legged frog during the construction and operational phases of the project. According to Caltrans, the proposed project will result in the permanent loss of 78.48 acres and the temporary loss of 19.32 acres of California red-legged frog habitat that is used by all life stages for breeding, feeding, sheltering, and dispersal. In addition to the harm and harassment associated with the destruction of California red-legged habitat (described further below), the project is also likely to result in effects associated with habitat fragmentation.

Caltrans proposes to minimize construction related effects by implementing the *Conservation Measures* and design features (undercrossings and directional fencing along the proposed Business Center Drive Extension) included in the project description section of this biological opinion. However, in spite of these measures the project has the potential to result in a variety of adverse effects that would result in take of the California red-legged frog.

Construction could result in the killing, harming and/or harassment of juveniles and adults inhabiting areas of suitable aquatic and upland habitat. The project as proposed by Caltrans in the project description of this biological opinion would result in the loss of approximately 97.8 acres of California red-legged frog habitat. The Service has determined that the permanent and temporary loss and/or degradation of California red-legged frog habitat will result in the take of all frogs within these areas as a direct result of habitat loss.

During the construction phase, permanent and temporal loss of aquatic and upland habitat will result from the removal and/or disturbance of soil and vegetation. Construction noise, vibration, lighting used for possible night work, and increased human activity during construction may interfere with normal behaviors such as feeding, sheltering, movement between refugia and foraging grounds, and other frog essential behaviors. This can result in avoidance of areas that have suitable habitat but intolerable levels of disturbance.

Unless identified by the biological monitor or site personnel, and rescued by the biological monitor, individual California red-legged frogs exposed during excavations likely will be crushed and killed or injured by construction-related activities. Even with biological monitoring, overall awareness, and proper escape ramps, California red-legged frogs could fall into the trenches, pits, or other excavations, and then risk being directly killed or be unable to escape and be killed due to desiccation, entombment, or starvation.

Red-legged frogs can be expected to fall or willingly enter into excavations created as a result of the project. Juvenile and adult frogs may have difficulty escaping pits. Entrapment may cause frogs to be more susceptible to predation and desiccation due to exposure. Frogs may take refuge in excavations, increasing their likelihood of being crushed, entombed, or otherwise injured. Such excavations are not part of the baseline environmental conditions and therefore Caltrans would have created a feature that could lead to harm and possible frog mortality.

Proper trash disposal is often difficult to enforce on a large construction site and is a common



non-compliance issue. Improperly disposed edible trash could attract predators, such as raccoons, crows, and ravens, to the sites, which could subsequently prey on the listed amphibian. Caltrans commitment to not use erosion control devices with mono-filament should be effective in avoiding the associated risk of entanglement that can result in death by predation, starvation, or desiccation (Stuart *et al.* 2001).

Caltrans proposes to limit initial ground-disturbing activities in California red-legged frog habitat (Caltrans 2011) between April 1 and November 1, when feasible. This measure would primarily avoid the wettest time of year and the onset of the breeding season when frogs are more likely to be involved in upland dispersal. When the work window is not feasible, biological monitoring will be performed when activities occur between November 1 and March 31. Frogs are more likely to move at night and more likely to be taking cover during the day. California red-legged frogs are cryptic and can be difficult for even experienced biological monitors to find. Monitoring will be occurring during the day when most frogs will be taking cover, making them even more difficult to find. Frogs that have moved into work areas at night and taken cover are unlikely to be found by biological monitors and will most likely be killed or harmed by activities. Frogs that are found, captured, and moved will be subjected to displacement and harassment that may lead to death or injury. Therefore allowing ground-disturbing activities with the implementation of biological monitoring during the wet and cool season (November 1 to March 31) likely will result in increased take relative to limiting ground-disturbing activities to the dry season.

Caltrans states they will attempt to minimize adverse effects by locating construction staging, storage and parking areas outside of California red-legged frog habitat; clearly marking construction work boundaries with high-visibility fencing, conducting preconstruction surveys and biological monitoring, and revegetating temporarily disturbed areas. The effects of construction activities and the removal of habitat will be partially minimized by installing wildlife exclusion fencing to deter frogs from wandering onto construction sites; educating workers; and requiring a Service-approved biologist to be present to monitor construction activities.

If unrestricted, the proposed construction activities could result in the introduction of chemical contaminants to frog habitat. Exposure pathways could include inhalation, dermal contact, direct ingestion, or secondary ingestion of contaminated soil, plants or prey species. Exposure to contaminants could cause short- or long-term morbidity, possibly resulting in reduced productivity or mortality. However, Caltrans proposes to minimize these risks by implementing erosion control, stormwater control, and spill prevention plans to minimize the potential degradation of aquatic and upland habitat that could lead to mortality and harm of California red-legged frogs. If unrestricted, biologists and construction workers traveling to the action area from other project sites may transmit diseases by introducing contaminated equipment. The chance of a disease being introduced into a new area is greater today than in the past due to the increasing occurrences of disease throughout amphibian populations in California and the United States. It is possible that chytridiomycosis, caused by chytrid fungus, may exacerbate the effects of other diseases on amphibians or increase the sensitivity of the amphibian to environmental changes (e.g., water pH) that reduce normal immune response capabilities (Bosch *et al.* 2001, Weldon *et al.* 2004).



Preconstruction surveys and the relocation of individual California red-legged frogs may avoid injury or mortality; however, capturing and handling frogs may result in stress and/or inadvertent injury during handling, containment, and transport. Caltrans proposes to minimize these effects by using Service-approved biologists and relocating amphibians to suitable nearby habitat.

The Business Center Drive Extension will likely result in significant fragmentation of the landscape and ecosystem functions. Bridge work within the aquatic and riparian California red-legged frog habitat associated with Jameson Canyon Creek, Ledgewood Creek, and Green Valley Creek will include earth-moving, vegetation clearing, habitat loss, general disturbance, and temporary creek diversions. These activities have the potential to harm and harass frogs that use these areas for year-round refuge, dispersal, and foraging.

The majority of the approximately 1.3-mile road segment from Business Center Drive to SR 12W and then south to I-80 will be bordered by road cuts which limit the potential for wildlife movement or incorporating safe wildlife passage across the road. In conjunction with directional fencing, the three undercrossing will likely provide safe crossing for most wildlife, including the California red-legged frog; however, connectivity will be greatly reduced compared to existing conditions and we anticipate that fewer frogs will successfully find and successfully navigate the new undercrossings.

Of primary concern, the Business Center Drive Extension will limit movement to and from the Mangels' pond which is likely the primary population source for the western portion of the SOL-2 critical habitat unit. Isolation of this breeding pond from the remainder of the surrounding habitat will reduce the size and distribution of California red-legged frogs in the SOL-2 unit by severing or limiting connectivity of what is now largely contiguous habitat north and south of the proposed Business Center Drive Extension. With the addition of the three proposed undercrossings and directional fencing, frogs and other wildlife will be limited to 35 feet of crossing opportunities along the 0.79-mile Business Center Drive Extension from the western terminus of the existing Business Center Drive and Jameson Canyon Road (SR 12W). Construction of this barrier will reduce dispersal to 0.8 percent of the original topography that was available for movement. This adverse effect could be partially minimized if one or more breeding ponds would be constructed north of the Business Center Drive Extension.

The Business Center Drive Extension is within the City of Fairfield's urban growth boundary and establishment of the road will enable access for future industrial, residential, and recreational development within California red-legged frog habitat. This development is likely to result in additional habitat fragmentation, degradation, and loss. Caltrans has not proposed any measures to minimize this take from increased development due to this road extension.

The development associated with the proposed Business Center Drive Extension will further reduce available foraging and dispersal habitat for California red-legged frogs that breed in Mangels' pond and disperse widely to the north and west. This development, when combined with reduced connectivity of habitat caused by construction of the road extension itself, is likely to significantly reduce the size and distribution of frogs that occupy the area from Mangels' pond northward into Napa County as animals will become less successful at reaching Mangels' pond



to breed and disperse north as juveniles and lose the ability to live in the area south of the road extension as habitat is lost to development. The keys to minimizing these effects include:

- 1 Easements south of the proposed Business Center Drive Extension that connect Mangels' pond and the Business Center Drive Extension underpasses, and
2. Easements north of the Business Center Drive Extension.

The proposed project further precludes a key conservation need for the Jameson Canyon Lower Napa River Core Recovery Area, which is to protect the dispersal corridors between Jameson Canyon Creek and surrounding upland and breeding habitat. Planned infrastructure changes to SR 12W are likely to exacerbate the barrier effects as the roadway is widened and median barriers are installed.

Caltrans proposal to compensate for permanent and temporal habitat loss with in-perpetuity preservation of 245.1 acres of California red-legged frog habitat in Solano County will likely offset the adverse effects of the project and provide a benefit for the species. This habitat will be permanently protected and a management plan will be implemented which will aid the species.

#### *Contra Costa Goldfields Critical Habitat*

The proposed action is not expected to appreciably diminish the conservation and recovery value of critical habitat for Contra Costa goldfields. The proposed project will result in the loss of 3.83 acres (1.31 permanent + 2.52 temporary) of the 736.72-acre critical habitat unit 5B. The permanent loss is approximately 0.2 percent of the total unit. The effects will be limited to the northern edge of the unit and will occur on the existing raised SR 12E roadbed and parallel to the bottom of the slope. The completed project will not expand southward into Gentry Suisun wetland and has been designed to sustain existing hydrology. The project will avoid adverse effects to topographical features that influence the hydrology (PCE 1) and will not result in the modification of depressional features (PCE 2) within Contra Costa goldfields habitat.

#### *California Red-Legged Frog Critical Habitat*

The proposed action is expected to diminish the value of the SOL-2 critical habitat in its intended function for the conservation and recovery of the California red-legged frog. The proposed project will result in the direct loss of 12.75 acres (8.30 permanent + 4.45 temporary) of the 3,360-acre unit.

The proposed project will result in the isolation of the only verified California red-legged frog breeding habitat (Mangels' Pond) in the SOL-2 unit. Mangels' Pond is also the largest pond in the unit. The Business Center Drive Extension will include three undercrossings and fencing intended to exclude frogs from the roadway and direct them towards the undercrossings. Movement, including juvenile dispersal from breeding habitat and adult movement to and from breeding habitat will be substantially limited due to a 99.2 percent reduction in the available north-south dispersal corridor.



Establishing the new road is also likely to be growth inducing, allowing access for development that will further constrict, degrade, and eliminate upland habitat adjacent to Mangels' Pond and the road undercrossings. Therefore, the proposed project has the potential to completely isolate what is likely a population source breeding pond from the remainder of SOL-2.

The Business Center Drive Extension along with the road widening and vertical barrier construction on SR 12W will severely limit connectivity that now exists between SOL-2 and SOL-3.

Therefore, the proposed project is likely to negatively modify the function of the SOL-2 unit by limiting or eliminating access to a primary breeding pond (PCE 1) and by severely limiting dispersal within the SOL-2 unit and between SOL-2 and SOL-3 (PCE 4). Caltrans' *Proposed Conservation Measures* are unlikely to sufficiently avoid adverse modification of these PCEs because the project includes limited features and the project creates limited potential for maintaining connectivity.

For purposes of the adverse modification determination, the effects on California red-legged frog critical habitat is evaluated in the context of the range-wide condition of the critical habitat at the provincial and range-wide scales. Although the proposed project is likely to significantly impair the habitat function and recovery value of the SOL-2 and SOL-3 units, it is unlikely to adversely modify the range-wide recovery role and functions of overall California red-legged frog critical habitat designation.

### **Cumulative Effects**

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Although not a covered activity, the proposed project area is included in the zone of covered activities for the draft Solano HCP. The Fairfield General Plan designates much of this area for planned development. Adverse effects to showy Indian clover, Contra Costa goldfields and its critical habitat, vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, Central California Distinct Population Segment of the California tiger salamander, and California red-legged frog and its critical habitat including habitat loss and further fragmentation in this area due to non-Federal actions would result in cumulative effects to listed species and their critical habitat. Realignment of the interchanges, particularly extension of Business Center Drive is likely to enhance urban growth potential.

### **Conclusion**

After reviewing the current status of the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog, the environmental baseline for the action area; the effects of the proposed I-80/I-680/SR 12 Interchange Phase I Project and the cumulative effects; it is the Service's biological opinion that the project, as proposed, is not likely to jeopardize the continued existence of these listed species.



However, the proposed project likely will result in significant negative effects to critical habitat unit SOL-2 of the California red-legged frog. We based these determinations on the following: (1) pre-construction surveys will be conducted for listed species; (2) a Service-approved biologist will monitor all activities for compliance with this biological opinion; (3) effects to the valley elderberry beetle will be addressed by implementing programmatic conservation measures, including transplantation of elderberry shrubs; (4) directional fencing along and undercrossings across Business Center Drive will avoid complete isolation of a California red-legged frog breeding pond; (5) California red-legged frogs found in the project work area will be relocated to nearby suitable habitat; (6) habitat loss will be compensated with in-perpetuity preservation of vernal pool tadpole shrimp, vernal pool fairy shrimp, and California red-legged frog habitat; (7) callippe silverspot butterfly habitat loss will be compensated with in-perpetuity preservation of callippe silverspot butterfly habitat and/or enhancement of occupied habitat; and (8) other conservation measures, as described in the *Proposed Conservation Measures* of this biological opinion, that will be fully implemented by Caltrans.

The Service has also determined that the proposed action is not likely to result in the destruction or adverse modification of critical habitat for the Contra Costa goldfields due to limiting permanent effects to the existing road embankment.

The proposed action is not likely to result in the destruction or adverse modification of critical habitat for the California red-legged frog because although it will significantly reduce access to the only known breeding pond in this critical habitat unit, the effects likely will diminish the recovery, but not the survival value, of critical habitat units SOL-2 and SOL-3.

### INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened fish and wildlife species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, movement, breeding, feeding, or sheltering. Harm is defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by impairing behavioral patterns including movement, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

The measures described below are non-discretionary, and must be implemented by Caltrans so that they become binding conditions of any grant or permit issued to Caltrans as appropriate, in order for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this Incidental Take Statement. If Caltrans: (1) fails to adhere to the



terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document; and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

### **Amount or Extent of Take**

#### *Vernal Pool Fairy Shrimp/Vernal Pool Tadpole Shrimp*

The Service expects that incidental take of vernal pool fairy shrimp and vernal pool tadpole shrimp may occur during this action. The extent of the take will be difficult to detect or quantify because of the ecology and biology of these species. Additionally, their size and cryptic nature makes the finding of a dead specimen unlikely. Seasonal population fluctuations also may mask the ability to determine the exact extent of take. Due to the difficulty in quantifying the number of vernal pool crustaceans that will be taken as a result of the proposed action, the Service is quantifying take incidental to the proposed project as the number of acres of seasonal wetlands (vernal pool crustacean habitat), that will become unsuitable for vernal pool crustaceans due to direct effects as a result of the action. Therefore, the Service estimates that the proposed action will result in the direct take of all vernal pool crustaceans inhabiting 1.45 acres of vernal pool habitat. Anticipated take is expected to be in the form of harm and mortality from habitat loss and modification, construction related disturbance, and reduced fitness.

#### *Callippe Silverspot Butterfly*

The Service anticipates incidental take of callippe silverspot butterfly will be difficult to detect or quantify because it is unlikely an injured or dead specimen will be found due to the elusive and cryptic nature of the early stages of this species (eggs, larvae, pupae), the difficulty of non-specialist to observe and identify the adults, and their small size. However, the level of incidental take of this animal can be anticipated by the effects to cover, foraging, and breeding habitat. Conservation measures in this biological opinion will reduce, but are unlikely to eliminate, the potential for incidental take of this listed species. The Service, therefore, anticipates incidental take of callippe silverspot butterfly will result from the proposed project. Upon implementation of the reasonable and prudent measures, all individuals of callippe silverspot butterfly inhabiting 58.14 acres of identified habitat will be subject to incidental take in the form of harm, harassment, injury, and mortality.

#### *Valley Elderberry Longhorn Beetle*

The Service expects that incidental take of the valley elderberry longhorn beetle will be difficult to detect or quantify because the life cycle of the beetle and its small body size make discovery of a dead specimen unlikely, losses may be masked by seasonal fluctuations in numbers or other causes, and the species occurs in habitat that makes them difficult to detect. It is not possible to make an accurate estimate of the number of valley elderberry longhorn beetles that will be harassed, harmed, injured, or killed as a result of construction activities. In instances when take is difficult to detect, the Service often estimates take relative to the number of elderberry stems, 1 inch or greater in diameter, that are lost or degraded as a result of the action. Therefore, the Service estimates that all valley elderberry longhorn beetles inhabiting the 62 stems of 1 inch or



greater in the ten identified elderberry shrubs in the action area may be harassed, harmed, injured, or killed, as a result of the proposed action.

#### *California Red-Legged Frog*

The Service anticipates that incidental take of the California red-legged frog will be difficult to detect due to their small size, wariness, and cryptic nature. Finding an injured or dead California red-legged frog is unlikely due to their relatively small body size, rapid carcass deterioration, and likelihood that the remains will be removed by a scavenger. Losses of this species may also be difficult to quantify due to a lack of baseline survey data and seasonal/annual fluctuations in their numbers due to environmental or human-caused disturbances. There is a risk of harm, harassment, injury and mortality as a result of the proposed construction activities, the permanent and temporary loss/degradation of suitable habitat, and capture and relocation efforts; therefore, the Service is authorizing take incidental to the proposed action as: (1) the injury and mortality of two adult or juvenile California red-legged frogs; and (2) the capture, harm and harassment of all California red-legged frogs within the construction footprint.

Upon implementation of the following *Reasonable and Prudent Measures*, vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterflies, valley elderberry longhorn beetles, and California red-legged frogs within the action area in proportion to the amount and type of take outlined above will become exempt from the prohibitions described under section 9 of the Act. No other forms of take are exempted under this opinion.

This biological opinion does not authorize take for Federal and non-Federal actions associated with the maintenance of roadways included in this action, and the associated Caltrans and STA ROWs. Routine Caltrans and STA maintenance activities such as the removal/displacement of sand, silt, sediment, debris, rubbish, vegetation, and other obstruction flow, the control of weeds, grasses and emergent vegetation, minor repair of existing facilities, rip-rap replacement, and culvert replacement may affect listed species. Such maintenance activities and their potential effects to listed species are not evaluated in this biological opinion.

#### **Effect of the Take**

The Service has determined that the level of anticipated take for the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog is not likely to jeopardize the continued existence of this species.

#### **Reasonable and Prudent Measures**

The following reasonable and prudent measures are necessary and appropriate to minimize the effect of the proposed action on the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog. Caltrans will be responsible for implementation of and compliance with these measures:

- 1 Caltrans will minimize the effect of take to the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog.



**Terms and Conditions**

In order to be exempt from the prohibitions of section 9 of the Act, Caltrans shall ensure compliance with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are nondiscretionary.

1. The following *Terms and Conditions* implement *Reasonable and Prudent Measure* one (1):
  - a. Caltrans shall minimize the potential for harm, harassment, or killing of vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog resulting from project related activities by implementing the conservation measures as described in the *Description of the Proposed Action* of this Biological Opinion.
  - b. Caltrans shall require all contractors to comply with the Act in the performance of the action and shall perform the action as outlined in the *Description of the Proposed Action* of this Biological Opinion and all other supporting documentation submitted to the Service.
  - c. Caltrans shall include language in their contracts that expressly requires contractors and subcontractors to work within the boundaries of the project footprints identified in this biological opinion, including vehicle parking, staging, laydown areas, and access roads.
  - d. The Service, and/or their designated agents shall have direct access at any time or immediately upon verbal request to the action area and all Service-approved biologists to ensure compliance with this Biological Opinion. Access to areas outside of the Caltrans ROW or easements shall be coordinated by Caltrans with the respective property owners.
  - e. Qualifications of proposed biological monitor(s) shall be submitted to the Service for approval at least 30 calendar days prior to initiating construction activities for the proposed project.
  - f. Prior to approval, the biologist(s) shall submit a letter to the Service verifying that they possess a copy of this biological opinion and understand its Terms and Conditions. The biologist(s) shall keep a copy of this Biological Opinion in their possession when on-site.
  - g. The Resident Engineer or their designee shall be responsible for implementing the conservation measures and Terms and Conditions of this Biological Opinion and shall be the point of contact for the project. The Resident Engineer or their designee shall maintain a copy of this Biological Opinion onsite whenever construction is taking place. Their name and telephone number shall be provided to the Service at least thirty (30) calendar days prior to groundbreaking for each of the construction packages. Prior to ground breaking, the Resident Engineer must submit a letter to the Service verifying that they possess a copy of this Biological Opinion and have read the Terms and Conditions.
  - h. An outline of the Worker Environmental Awareness Training Program shall be submitted to the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife



Office within 30 days prior to the initial onset of construction activities. As needed, training will be conducted in Spanish for Spanish language speakers.

- i. A Service-approved biologist(s) shall be onsite during all activities that may result in take of vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog as determined by the Service. A minimum of one Service-approved biologist shall be onsite throughout the project duration. The Service will consider the implementation of specific project activities without the oversight of a Service-approved biologist on a case-by-case basis.
- j. During construction activities outside the existing hardscape, the Service-approved biologist shall conduct clearance surveys at the beginning of each day within or adjacent to suitable listed species habitat and regularly throughout the workday when construction is occurring within or adjacent to suitable habitat.
- k. Vegetation clearing and construction operations shall be limited to the minimum necessary in areas of temporary access, work areas, and staging. Trees, snags, shrubs, other vegetation, woody debris, and uncompacted forest litter will be protected to the maximum extent practicable. Tree and shrub trimming shall be minimized to the extent possible. Trees shall be pruned, or shrubs that interfere with construction or project operation shall be pruned or topped. Shrubs shall be trimmed above ground and roots will be left intact. All vegetation trimmings shall either be hauled off-site and disposed of properly, or chipped and left on-site as determined by the Caltrans Resident Engineer. When possible, stockpiles of trimmed vegetation shall be kept at least 50 feet from the bed and bank.
- l. In areas where valley elderberry longhorn beetle will be affected, within sixty (60) calendar days prior to the initiation of ground disturbance, Caltrans shall provide a written description of how the valley elderberry longhorn beetle buffer areas will be restored, protected, and maintained after construction is completed.
- m. The following measures are intended to minimize the effect of take in the form of harassment on the California red-legged frog.
  - i. Each California red-legged frog encounter shall be treated on a case-by-case basis in coordination with the Service but general guidance is as follows: (1) leave the non-injured frog if it is not in danger; or (2) move the frog to a nearby location if it is in danger.

These two options are further described below.

- a) When a California red-legged frog is encountered in the action area the first priority is to stop all activities in the surrounding area that have the potential to result in the harm, harassment, injury, or death of the individual. Then the monitor needs to assess the situation in order to select a course of action that will minimize adverse effects to the individual. Contact the Service once the site is



secure. The contacts for this situation are Ryan Olah (ryan\_olah@fws.gov) or John Cleckler (john\_cleckler@fws.gov). They can be reached at (916) 414-6600. If you get voicemail message for these contacts then contact John Cleckler on his cell phone at (916) 712-6784. The issue of contacting people on the weekend or after office hours is addressed later.

The first priority is to avoid contact with the frog and allow it to move out of the action area and hazardous situation on its own to a safe location. The animal should not be picked up and moved based on it not moving fast enough or an inconvenience for construction activities. This guidance only applies to situations where a California red-legged frog is encountered on the move during conditions that make their upland travel feasible. This does not apply to California red-legged frogs that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to support the life history of the California red-legged frog should the frogs move outside the immediate area.

Avoidance is the preferred option if a California red-legged frog is not moving and is using aquatic habitat or is within some sort of burrow or other refugia. The area should be well marked for avoidance by construction and a Service-approved biological monitor should be assigned to the area when work is taking place nearby.

- b) The animal should be captured and moved when it is the only option to prevent harm.

If appropriate habitat is located immediately adjacent to the capture location then the preferred option is short-distance relocation to that habitat. This must be coordinated with the Service but the general guidance is the frog should not be moved outside of the radius it would have traveled on its own. Under no circumstances should a frog be relocated to another property without the owner's written permission. It is Caltrans' responsibility to arrange for that permission.

The release must be coordinated with the Service and will depend on where the individual was found and the opportunities for nearby release. In most situations the release location is likely to be into the mouth of a small burrow or other suitable refugia and in certain circumstances pools without non-native predators may be suitable.

Only Service-approved biologists for the project can capture California red-legged frogs. Nets or bare hands may be used to capture California red-legged frogs. Soaps, oils, creams, lotions, repellents, or solvents of any sort cannot be used on hands within two hours before and during periods when they are capturing and relocating California red-legged frogs. To avoid transferring disease or pathogens between sites during the course of surveys or handling of the frogs, Service-approved biologists must use the following guidance for disinfecting equipment and clothing. These recommendations are adapted from



the *Declining Amphibian Population Task Force's Code* which can be found in their entirety at: <http://www.open.ac.uk/daptf/>

- 1) All dirt and debris, including mud, snails, plant material (including fruits and seeds), and algae, must be removed from nets, traps, boots, vehicle tires and all other surfaces that have come into contact with water and/or an amphibian. Cleaned items should be rinsed with clean water before leaving each site.
  - 2) Boots, nets, traps, etc., must then be scrubbed with either a 70 percent ethanol solution, a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water), QUAT 128 (quaternary ammonium, use 1:60 dilution), or a six percent sodium hypochlorite 3 solution and rinsed clean with water between sites. Avoid cleaning equipment in the immediate vicinity of a pond or wetland. All traces of the disinfectant must be removed before entering the next aquatic habitat.
  - 3) Used cleaning materials (liquids, etc.) must be disposed of safely, and if necessary, taken back to the lab for proper disposal.
  - 4) Service-approved biologists must limit the duration of handling and captivity. While in captivity, individual California red-legged frogs shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. Containers used for holding or transporting should not contain any standing water.
- ii. The Service-approved biologist(s) shall perform a California red-legged frog clearance survey immediately prior to the initial ground disturbance. Safety permitting, the Service-approved biologist(s) will investigate areas of disturbed soil for signs of the listed species within 30 minutes following the initial disturbance of that given area.
  - iii. Construction crews shall review the dewatering plan prior to any in-stream work within the bed and banks that requires the construction of coffer dams and/or dewatering.
  - iv. Removal of vegetation shall be accomplished by a progressive cutting of vegetation from the overstory level to the ground level to allow California red-legged frogs more opportunity move out of the work area under their own volition. Vegetation shall be cleared only where necessary and will be cut approximately 4 inches above soil level except in areas that will be excavated for roadway construction. This is intended to encourage plants that reproduce vegetatively to resprout after construction. All clearing and grubbing of woody vegetation shall be done using hand tools, small mechanical tools, or backhoes and excavators. All cleared vegetation shall be removed from the project footprint to prevent attracting animals to the project site.



- v. If pumping is used for dewatering, intakes shall be completely screened with wire mesh no larger than 0.2 inch to prevent frogs from entering the pump.
- vi. The Service-approved biologist(s) shall permanently remove, from the project site, any aquatic exotic wildlife species, such as bullfrogs and crayfish, to the extent possible.
- n. Erosion control materials other than seeding only shall consist of hydraulically applied erosion control products, organic mulches free of non-native seeds, organic mulch control nettings with loose weave construction (the strands slide along cross strands) and openings over 4 centimeters, staked in straw bales or temporary erosion control fencing. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer or other synthetic materials shall not be used.
- o. Through the Resident Engineer or their designee, the Service-approved biological monitor(s) will be given the authority to communicate either verbally, by telephone, e-mail message, or hardcopy with Caltrans personnel, construction personnel or any other person(s) at the project site or otherwise associated with the project to ensure that the terms and conditions of this biological opinion are being met. If situations arise where the terms and conditions may not be met or are not being met, the biological monitor will inform the Resident Engineer, who has the authority to stop work. If the Resident Engineer exercises this authority, the Service will be notified by telephone and e-mail message within one working day. The Service contact is the Coast-Bay/Forest Foothill Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600. Discussions with the Resident Engineer, biological monitor, Caltrans staff and Service staff, will take place to identify and inform actions to resolve the issue and to document decisions.

### **Reporting Requirements**

Caltrans shall report to the Service any information about take or suspected take of listed wildlife species. Caltrans must notify the Service via an e-mail or telephone message within 24 hours of receiving such information. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and photographs of the specific animal. The individual animal shall be preserved, as appropriate, and held in a secure location until instructions are received from the Service regarding the disposition of the specimen or the Service takes custody of the specimen. The Service contacts are the Coast-Bay/Forest Foothills Division Chief in the Sacramento Fish and Wildlife Office at (916) 414-6600, and the Resident Agent-in-Charge of the Service's Law Enforcement Division at (916) 414-6660.

Caltrans shall submit a post-construction compliance report prepared by the on-site biologist to the Sacramento Fish and Wildlife Office within sixty (60) calendar days of the date of the completion of each Construction Package. This report shall detail (i) dates that construction occurred; (ii) pertinent information concerning the success of the project in meeting compensation and other conservation measures; (iii) an explanation of failure to meet such measures, if any; (iv) known project effects on the vernal pool tadpole shrimp, vernal pool fairy



shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog, if any; (v) occurrences of incidental take to any listed species, if any; and (vii) other pertinent information. The final construction acreage of permanent and temporary habitat loss will be tabulated separately and provided to the Service. The extent of permanent and temporary habitat loss will be delineated with a handheld GPS device and a trackfile of each will be provided to the Service.

## CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or development of information and data bases. The Service requests notification of the implementation of any conservation recommendations in order to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats. We propose the following conservation recommendations:

1. Enhancing habitat connectivity and wildlife passage across roads as well as reducing road effects should be included in the *Purpose and Need* section of environmental documents. FHWA agreed to coordinate with the Service on wildlife movement issues in a June 2, 2010, letter addressed to Mr. Greg Costello of the Western Environmental Law Center. As their NEPA delegate, Caltrans District 4 is expected to adopt the commitments made by FHWA to consider wildlife movement in transportation planning and project development.
2. Caltrans District 4 should include a wildlife passage section in their BAs that includes an analysis of the existing passage and how the project will affect passage. The analysis should include identification of the species' resources on both sides of the project boundaries, an appropriately timed road mortality survey to identify "hot spots," and strategic locations where the species could benefit from the enhancement of an existing crossing or the installation of a new crossing. Caltrans District 4 should coordinate with their headquarters office and the University of California at Davis Road Ecology Center to develop a passage and road effects approach. Further guidance is provided by FHWA's *Wildlife Vehicle Collision Reduction Study* (available at: <http://www.fhwa.dot.gov/environment/hconnect/wvc/index.htm>) and Caltrans' *Wildlife Crossings Guidance Manual* ([http://www.dot.ca.gov/hq/env/bio/wildlife\\_crossings/](http://www.dot.ca.gov/hq/env/bio/wildlife_crossings/)).
3. Efforts should be made to establish upland culverts designed specifically for wildlife movement as well as making accommodations for terrestrial wildlife movement through culverts that convey hydrology. Transportation agencies should also acknowledge the value of enhancing human safety by providing safe passage for wildlife in their early project design.
4. Caltrans should reference their internal system they have developed to keep track of road mortality records and the University of California at Davis, Road Ecology Center's



*California Roadkill Observation System* (<http://www.wildlifecrossing.net/california/>). Information from these databases should be referenced in road project assessments.

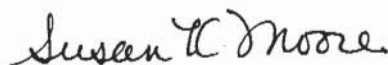
5. Caltrans should consider establishing functioning preservation and creation conservation banking systems to further the conservation of the vernal pool tadpole shrimp, vernal pool fairy shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog and other listed species. Such banking systems also may be utilized for other required mitigation (i.e., seasonal wetlands, riparian habitats, etc.) where appropriate. Efforts should be made to preserve habitat along roadways in association with established or planned wildlife crossings.
6. Caltrans should continue to develop and implement their *Early Statewide Biological Mitigation Planning Project* that has been developed by the University of California at Davis, Road Ecology Center to offset the effects of Caltrans' projects on listed species.

### REINITIATION--CLOSING STATEMENT

This concludes formal consultation on the I-80/I-680/SR 12 Interchange Phase 1 Project. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, including work outside of the project footprint analyzed in this opinion and including vehicle parking, staging, lay down areas, and access roads; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion including use of rodenticides or herbicides; relocation of utilities; and use of vehicle parking, staging, lay down areas, and access roads; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending re-initiation.

If you have any questions regarding this biological opinion for the I-80/I-680/SR 12 Interchange Phase 1 Project, please contact John Cleckler or Ryan Olah at the letterhead address or at (916) 414-6600.

Sincerely,



Susan K. Moore  
Field Supervisor



cc:

Scott Wilson and Brenda Blinn, California Department of Fish and Game, Yountville, California

Janet Adams, Solano Transportation Authority, Suisun City, California

Brendan Thompson, San Francisco Bay Regional Water Quality Control Board, Oakland,  
California

Carolyn Mulvihill, U.S. Environmental Protection Agency, San Francisco, California

Paula Gill, U.S. Army Corps of Engineers, San Francisco, California

Joe Heublein, National Marine Fisheries Service, Santa Rosa, California

Christopher States, Jeffrey Jenson, Frances Malamud-Roam, and Howell Chan, California  
Department of Transportation, Oakland, California

Shahira Ashkar, ICF International, Sacramento, California

### Literature Cited

- Adger, N., P. Aggarwal, S. Agrawala, J. Alcamo, A. Allali, O. Anisimov, N. Arnell, M. Boko, O. Canziani, T. Carter, G. Cassa, U. Confalonieri, R. Cruz, E. de Alba Alcaraz, W. Eastreling, C. Field, A. Fischlin, B. Fitzharris, C. G. Garcia, C. Hanson, H. Harasawa, K. Hennessy, S. Huq, R. Jones, L. K. Bogataj, D. Karoly, R. Kliein, Z. Kundzewicz, M. Lal, R. Lasco, G. Love, X. Lu, G. Magrin, I. J. Mata, R. McLean, B. Menne, G. Midgley, N. Mimura, M. Q. Mirza, J. Moreno, L. Mortsch, I. Niang-Diop, R. Nichols, B. Novaky, L. Nurse, A. Nyong, M. Oppenheimer, J. Palutikof, M. Parry, A. Patwardhan, P. R. Lankao, C. Rosenzweig, S. Schneider, S. Semenov, J. Smith, J. Stone, J. van Ypersele, D. Vaughan, C. Vogel, T. Wilbanks, P. Wong, S. Wu, and G. Yohe. 2007. Working Group II Contribution to the Intergovernmental Panel on Climate Change Fourth Assessment Report. Climate Change 2007: Climate change impacts, adaptation and vulnerability. Brussels, Belgium.
- Ashley, E. P. and J. E. Robinson. 1996. Road mortality of amphibians, reptiles and other wildlife on the Long Point Causeway, Lake Erie, Ontario. *Canadian Field Naturalist* 110: 403-412.
- Barry, S. 1992. Letter to Marvin L. Plenert, Regional Director, U.S. Fish and Wildlife Service, Portland, Oregon, regarding proposed listing.
- Bauder, E. T. 1986. San Diego vernal pools: recent and projected losses, their condition, and threats to their existence. California Department of Fish and Game, Sacramento, California.
- . 1987. Threats to San Diego vernal pools and a case study in altered pool hydrology. Pages 209-214 in T. S. Elias (editor). *Conservation and management of rare and endangered plants*. California Native Plant Society. Sacramento, California.
- Baughman, J.F., D.D. Murphy, and P.R. Ehrlich. 1988. Population structure of a hilltopping butterfly. *Oecologia* 75:593-600.
- Bonnet, X., G. Naulleau, and R. Shine. 1999. The dangers of leaving home: dispersal and mortality in snakes. *Biological Conservation* 89: 39-50.
- Bosch, J., I. Martinez-Solano, and M. Garciaparis. 2001. Evidence of a chytrid fungus infection involved in the decline of the common midwife toad (*Alytes obstetricans*) in protected areas of central Spain. *Biological Conservation* 97: 331-337.
- Buechner, M. 1987. Conservation in insular parks: simulation models of factors affecting the movement of animals across park boundaries. *Biological Conservation* 41:57-76.
- Bulger, J. B., N. J. Scott Jr., and R. B. Seymour. 2003. Terrestrial activity and conservation of adult California red-legged frogs *Rana aurora draytonii* in coastal forests and grasslands. *Biological Conservation* 110:85-95.



- Bury, R. B and J. A. Whelan. 1984. Ecology and management of the bullfrog. Fish and Wildlife Service/Resource Publication 155.
- Buza, L. A. Young, and P. Thrall. 2000. Genetic erosion, inbreeding and reduced fitness in fragmented populations of the endangered tetraploid pea *Swainsona recta*. Biological Conservation 93:177–186.
- California Department of Fish and Game (CDFG). 2011a. California Natural Diversity Data Base (CNDDB) RAREFIND. Natural Heritage Division, Sacramento, California.
- \_\_\_\_\_. 2011b. BIOSIS. Natural Heritage Division, Sacramento, California.
- California Department of Transportation (Caltrans). 2007. Biological assessment for the restoration of the hydraulic capacity of the Cowan Storm Drain Canal within the U.S. Highway 101/Millbrae Avenue Interchange. EA 3A0400. December 2007. Caltrans District 4, Oakland, California.
- \_\_\_\_\_. 2010. Interstate 80/Interstate 680/State Route 12 Interchange Project Draft Environmental Impact Report/Environmental Impact Statement. Volume 1. August 2010. Caltrans District 4, Oakland, California.
- \_\_\_\_\_. 2011. Biological assessment for the Interstate 80/Interstate 680/State Route 12 Interchange Project. EA 0A5300. April 2011. Caltrans District 4, Oakland, California.
- Carr, L. W., and L. Fahrig. 2001. Effect of road traffic on two amphibian species of differing vagility. Conservation Biology 15: 1071-1078.
- Casagrandi, R., and M. Gatto. 1999. A mesoscale approach to extinction in fragmented habitats. Nature 400: 560-562.
- Cooke, A. S. 1995. Road mortality of common toads (*Bufo bufo*) near a breeding site, 1974-1994. Amphibia-Reptilia 16: 87-90.
- Davidson, E. W., M. Parris, J. Collins, J. Longcore, A. P. Pessier, and J. Brunner. 2003. Pathogenicity and transmission of Chytridiomycosis in tiger salamanders (*Ambystoma tigrinum*). Copeia 2003(3): 601-607.
- Drews, C. 1995. Road kills of animals by public traffic in Mikumi National Park, Tanzania, with notes on baboon mortality. African Journal of Ecology 33: 89-100.
- Emlen, S. T. 1977. "Double clutching" and its possible significance in the bullfrog. Copeia 1977(4):749-751.
- Fahrig, L. 1998. When does fragmentation of breeding habitat affect population survival? Ecological Modeling 105: 273-292.

- Fellers, G. 2005. *Rana draytonii* Baird and Girard, 1852b California red-legged frog. Pages 552-554 in M. Lannoo (editor). Amphibian declines the conservation status of United States species. University of California Press. Berkeley, California.
- Fisher, R. N., and H. B. Schaffer. 1996. The decline of amphibians in California's Great Central Valley. *Conservation Biology* 10(5):1387-1397
- Forman, R.T. 2000. Estimate of the area affected ecologically by the road system in the United States. *Conservation Biology* 14(1): 31-35.
- Forman, T. T. and R. D. Deblinger. 1998. The ecological road-effect zone for transportation planning, and a Massachusetts highway example. Pages 78-96 in G. L. Evink, P. Garrett, D. Zeigler, and J. Berry (editors). *Proceedings of the International Conference on Ecology and Transportation*. Publication FL-ER-69-98. Florida Department of Transportation, Tallahassee.
- Forys, E. A. and S. R. Humphrey. 1996. Home range and movements of the Lower Keys marsh rabbit in a highly fragmented environment. *Journal of Mammalogy* 77:1042-1048.
- Garner, T. W. J., S. Walker, J. Bosch, A. D. Hyatt, A. A. Cunningham, M. C. Fisher. 2005. Chytrid fungus in Europe. *Emerging Infectious Diseases* 11: 1639-1641
- Gibbs, J. P. 1998. Amphibian movements in response to forest edges, roads, and streambeds in southern New England. *Journal of Wildlife Management* 62: 584-589.
- Gilpin, M. E., and M. E. Soule. 1986. Minimum viable populations: process of species extinctions. Pages 19-34 in M. E. Soule (editor). *Conservation biology: the science of scarcity and diversity*. Sinauer, Sunderland, Massachusetts.
- Gotelli, N. J. 1991. Metapopulation models: the propagule rain, the rescue effect, and the core-satellite hypothesis. *The American Naturalist* 138: 768-776.
- Hanes W. T. and L. P. Stromberg. 1998. Hydrology of vernal pools on non-volcanic soils in the Sacramento Valley. Pages 38-49 in C. W. Witham, E. T. Bauder, D. Belk and W. R. Ferren, Jr (editors). *Ecology, Conservation, and Management of Vernal Pool Ecosystems – Proceedings From a 1996 Conference* (California Native Plant Society, Sacramento, California).
- Hanes W. T., B. Hecht, and L. P. Stromberg. 1990. Water relationships of vernal pools in the Sacramento region. D. H. Ikeda and R. A. Schlising (editors). Pages 49-60 in *California Vernal Pool Plants: Their Habitat and Biology*, Studies from the Herbarium, California State University, Chico, Number 8, Chico, CA.
- Hansen, L. 1982. Trafikdræbte dyr i Danmark (Road kills in Denmark, in Danish). *Dansk Ornitologisk Forenings Tidsskrift* 76, pages 97-110.



- Hanski, I. 1982. Dynamics of regional distribution: the core and satellite hypothesis. *Oikos* 38:210-221.
- . 1991. Single species metapopulation systematics: concepts, models and observations. *Biological Journal of the Linnean Society* 42:3-16.
- . 1994. A practical model of metapopulation dynamics. *Journal of Animal Ecology* 63: 151-162.
- Hayes, M. P., and M. R. Jennings. 1988. Habitat correlates of distribution of the California red-legged frog (*Rana aurora draytonii*) and the foothill yellow-legged frog (*Rana boylei*): implications for management. Pages 144-158 in R. Sarzo, K. E. Severson, and D. R. Patton (technical coordinators). *Proceedings of the symposium on the management of amphibians, reptiles, and small mammals in North America*. United States Department of Agriculture, Forest Service, Rocky Mountain Range and Experiment Station, Fort Collins, Colorado. General Technical Report (RM-166): 1-458.
- Hayes, M. P. and D. M. Krempels. 1986. Vocal sac variation among frogs of the genus *Rana* from western North America. *Copeia* 1986(4):927-936.
- Hayes, M. P. and M. M. Miyamoto. 1984. Biochemical, behavioral and body size differences between *Rana aurora aurora* and *R. a. draytonii*. *Copeia* 1984(4):1018-1022.
- Hayes, M. P., and M. R. Tennant. 1985. Diet and feeding behavior of the California red-legged frog, *Rana aurora draytonii* (Ranidae). *Southwestern Naturalist* 30(4): 601-605.
- Hels, T. and E. Buchwald. 2001. The effect of road kills on amphibian populations. *Biological Conservation* 99: 331-340.
- Hilty, J. A. and A. M. Merenlender. 2004. Use of riparian corridors and vineyards by mammalian predators in Northern California. *Conservation Biology* 18: 126-135.
- Holt, R. D. 1993. Ecology at the mesoscale: the influence of regional processes on local communities. Pages 77–88 in *Species Diversity in Ecological Communities*. Ricklefs, R. & Schluter, D. (editors). University of Chicago Press. Chicago, Illinois,.
- Hunt, L. 1993. Letter to Marvin L. Plenert, Regional Director, U.S. Fish and Wildlife Service, Portland, Oregon, regarding proposed listing.
- Jennings, M. R. 1993. Letter to Peter C. Sorensen, U.S. Fish and Wildlife Service, Sacramento, California.
- Jennings, M. R., and M. P. Hayes. 1985. Pre-1900 overharvest of California red-legged frogs (*Rana aurora draytonii*): The inducement for bullfrog (*Rana catesbeiana*) introduction. *Herpetological Review* 31(1):94-103.

- \_\_\_\_\_. 1990. Final report of the status of the California red-legged frog (*Rana aurora draytonii*) in the Pescadero Marsh Natural Preserve. Final report prepared for the California Department of Parks and Recreation, Sacramento, California, through Agreement (4-823-9018). Department of Herpetology, California Academy of Sciences, Golden Gate Park, San Francisco, California. 30 pages.
- \_\_\_\_\_. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game, Rancho Cordova, California. 255 pp.
- Jennings, M. R., M. P. Hayes, and D. C. Holland. 1992. A petition to the U.S. Fish and Wildlife Service to place the California red-legged frog (*Rana aurora draytonii*) and the western pond turtle (*Clemmys marmorata*) on the list of endangered and threatened wildlife and plants. 21 pages.
- Kupferberg, S. J. 1996a. Hydrologic and Geomorphic Factors Affecting Conservation of a River-Breeding Frog (*Rana boylei*). Ecological applications 6:1322-1344.
- \_\_\_\_\_. 1996b. The Ecology of Native Tadpoles (*Rana boylei* and *Hyla regilla*) and the Impacts of Invading Bullfrogs (*Rana catesbeiana*) in a Northern California River. PhD dissertation. University of California, Berkeley, California.
- \_\_\_\_\_. 1997. Bullfrog (*Rana catesbeiana*) Invasion of a California River: The Role of Larval Competition. Ecology 78(6):1736-1751
- Kruse, K. C. and M. G. Francis. 1977. A predation deterrent in larvae of the bullfrog, *Rana catesbeiana*. Transactions of the American Fisheries Society 106(3):248-252.
- La Polla, V. N. and G. W. Barrett. 1993. Effects of corridor width and presence on the population dynamics of the meadow vole (*Microtus pennsylvanicus*). Landscape Ecology 8:25-37
- Levins, R. A. 1970. Extinction. American Mathematical Society 2: 77-107
- Lindenmayer, D. B. and H. P. Possingham. 1996. Modeling the interrelationships between habitat patchiness, dispersal capability and metapopulation persistence of the endangered species, Leadbeater's possum, in southeastern Australia. Landscape Ecology 11:79-105.
- Lips, K. R., D. E. Green, and R. Papendick. 2003. Chytridiomycosis in wild frogs from southern Costa Rica. Journal of Herpetology 37(1): 215-218.
- MacArthur, R. A., R. H. Johnston, and V. Geist. 1979. Factors in influencing heart rate in free-ranging bighorn sheep: a physiological approach to the study of wildlife harassment. Canadian Journal of Zoology 57: 2010-2021.



- Mallick, S. A., G. J. Hocking, and M. M. Driessen. 1998. Road-kills of the eastern barred bandicoot (*Perameles gunnii*) in Tasmania: an index of abundance. *Wildlife Research* 25: 139-145.
- Mao, J., D. E. Green, G. M. Fellers, and V. G. Chincar. 1999. Molecular characterization of iridoviruses isolated from sympatric amphibians and fish. *Virus Research* 6: 45-52.
- Mattoon, S.O., R.D. Davis, and O.D. Spencer. 1971. Rearing techniques for species of *Speyeria* (Nymphalidae). *Journal of the Lepidopterists' Society* 25:247-256.
- Moyle, P. B. 1976. Fish introductions in California: history and impact on native fishes. *Biological Conservation* 9(1):101-118.
- Munguira, M. L. and J. A. Thomas. 1992. Use of road verges by butterfly and moth populations, and the effect of roads on adult dispersal and mortality. *Journal of Applied Ecology* 29: 316-329.
- Murphy, D.D., and S.B. Weiss. undated. Report on surveys for the callippe silverspot butterfly, *Speyeria callippe callippe*, at the proposed Sky Valley development site. Department of Biological Sciences, Stanford University, Stanford, California.
- Petit, R. J., N. Bahrman, and P. Baradat. 1995. Comparison of genetic differentiation in maritime pine (*Pinus pinaster* Ait) estimated using isozymes, total proteins and terpenic loci. *Heredity* 75; 382-389.
- Rosen, P. C. and C. H. Lowe. 1994. Highway mortality of snakes in the Sonoran desert of southern Arizona. *Biological Conservation* 68: 143-148.
- Santos SM, F. Carvalho, and A. Mira. 2011. How long do the dead survive on the road? Carcass persistence probability and implications for road-kill monitoring surveys. *PLoS ONE* 6(9): e25383. doi:10.1371/journal.pone.0025383
- Shaffer, H. B., G.M. Fellers, S. R. Voss, C. Oliver, and G.B. Pauley. 2010. Species boundaries, phylogeography, and conservation genetics of the red-legged frog (*Rana aurora/draytonii*) complex. *Molecular ecology* 13: 2667-2677
- Shields, O. 1968. Hilltopping. *Journal Research on the Lepidoptera* 6(2): 69-178.
- Solano County Water Agency (SCWA). 2009. Solano Multispecies Habitat Conservation Plan Final Administrative Draft. Prepared by LSA. June 2009. Available at [http://www.scwa2.com/Conservation\\_Habitat\\_FinalAdminDraft.aspx](http://www.scwa2.com/Conservation_Habitat_FinalAdminDraft.aspx).
- Stamps, J. A., M. Buechner and V. V. Krishnan. 1987. The effects of edge permeability and habitat geometry on emigration from patches of habitat. *The American Naturalist* 129 (4): 533-552

- Stebbins, R. C. 2003. A field guide to western reptiles and amphibians. Houghton Mifflin Company, Boston, Massachusetts.
- Storer, T. I. 1925. A synopsis of the amphibia of California. University of California Publications in Zoology 27:1-1-342.
- . 1933. Frogs and their commercial use. California Department of Fish and Game 19(3):203-213.
- Stuart, J. M., M. L. Watson, T. L. Brown, and C. Eustice. 2001. Plastic netting: an entanglement hazard to snakes and other wildlife. Herpetological Review 32(3): 162-164.
- Tatarián, P. J. 2008. Movement patterns of California red-legged frogs (*Rana Draytonii*) in an inland California environment. Herpetological Conservation and Biology 3(2):155-169. November.
- Thomas Reid Associates. 1982. Final report to San Mateo County Steering Committee for San Bruno Mountain: endangered species survey (San Bruno Mountain), biological study - 1980–1981. Thomas Reid Associates, Palo Alto, California.
- Trombulak, S. C. and C. A. Frissell. 2000. The ecological effects of roads on terrestrial and aquatic communities: a review. Conservation Biology 14:18-30.
- Twedt, B. 1993. A comparative ecology of *Rana aurora* Baird and Girard and *Rana catesbeiana* Shaw at Freshwater Lagoon, Humboldt County, California. Unpublished. Master of Science thesis. Humboldt State University, Arcata, California. 53 pages plus appendix.
- U.S. Fish and Wildlife Service (Service). 2002. Recovery plan for the California red-legged frog (*Rana aurora draytonii*). Portland, Oregon. 173 pages.
- . 2005a. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxvi + 606 pages.
- . 2005b. Endangered and threatened wildlife and plants; final designation of critical habitat for four vernal pool crustaceans and eleven vernal pool plants in California and Southern Oregon; evaluation of economic exclusions from August 2003 Final Designation; Final Rule. **Federal Register** 70:46924-46999.
- . 2006a. Endangered and threatened wildlife and plants; designation of critical habitat for the California red-legged frog (*Rana aurora draytonii*), and special rule exemption associated with final listing for existing routine ranching activities; final rule. **Federal Register** 71(71):19244-19346.



- \_\_\_\_\_. 2006b. Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) 5-year review: summary and evaluation. Sacramento, California
- \_\_\_\_\_. 2007a. Vernal pool fairy shrimp (*Branchinecta lynchi*) 5-year review: Summary and evaluation. Sacramento, California
- \_\_\_\_\_. 2007b. Vernal pool tadpole shrimp (*Lepidurus packardii*) 5-year review: summary and evaluation. Sacramento, California
- \_\_\_\_\_. 2010. Endangered and threatened wildlife and plants; revised designation of critical habitat for California red-legged frog; final rule. **Federal Register** 75: 12815-12959.
- Van der Zande, A. N., W. J. ter Keurs, and W. J. Van der Weijden. 1980. The impact of roads on the densities of four bird species in an open field habitat - evidence of a long-distance effect. *Biological Conservation* 18: 299-321.
- Van Gelder, J. J. 1973. A quantitative approach to the mortality resulting from traffic in a population of *Bufo bufo* L. *Oecologia* 13:93-95.
- Verboom, B. and R. Apeldoorn. 1990. Effects of habitat fragmentation on the red squirrel *Sciurus vulgaris*. *Landscape Ecology* 4: 171-176.
- Verboom, B. J., K. Lankester, and J. A. Metz. 1991. Linking local and regional dynamics in stochastic metapopulation models. *Biological Journal Linnean Society* 42:39-55.
- Vos, C. C. and J. P. Chardon. 1998. Effects of habitat fragmentation and road density on the distribution pattern of the moor frog, *Rana arvalis*. *Journal of Applied Ecology* 35: 44-56.
- With, K. A. and T. O. Crist. 1995. Critical thresholds in species' responses to landscape structure. *Ecology* 76: 2246-2459.
- Wright, A. H. and A. A. Wright. 1949. Handbook of frogs and toads of the United States and Canada. Comstock Publishing Company, Inc., Ithaca, New York. 640 pages.
- Zedler, P. H. 1987. The ecology of southern California vernal pools: a community profile. U.S. Fish and Wildlife Service Biological Report 85 (7.11).



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE  
Southwest Region  
501 West Ocean Boulevard, Suite 4200  
Long Beach, California 90802-4213

January 14, 2011

In response, refer to:  
2010/06180

James Richards, Deputy District Director  
Department of Transportation  
Caltrans District 4  
Office of Environmental Analysis  
111 Grand Avenue  
Oakland, California 94610

Dear Mr. Richards:

Thank you for your letter of December 8, 2010, requesting initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Effective July 1, 2007, the Federal Highway Administration assigned, and the California Department of Transportation (Caltrans) has assumed all responsibilities for consultation and approval on most highway projects in California. Therefore, Caltrans is now considered the Federal action agency for ESA consultations with NMFS for Federally funded projects. This letter also serves as consultation under the authority of, and in accordance with, the Essential Fish Habitat (EFH) provisions of the Magnuson Stevens Fishery Conservation and Management Act (MSA), and the provisions of the Fish and Wildlife Coordination Act of 1934 (FWCA), as amended. These consultations pertain to Caltrans' proposed Interstate-80/Interstate-680/State Route 12 Interchange Improvement Project in Solano County, California.

The Interstate-80/Interstate-680/State Route 12 (I-80/I-680/SR 12) Interchange Improvement Project covers several miles of roadway around the City of Fairfield in Solano County, California. The western boundary of the Project is the Red Top Road crossings of I-680, I-80, and SR 12; the eastern boundary of the Project is the Suisun Valley Road crossing on I-80 and the LedgeWood Creek road crossing on SR 12. Surface water in the action area includes Green Valley Creek and LedgeWood Creek. The purpose of the project is to improve the I-80/I-680/SR 12 interchange complex to meet traffic demands and alleviate cut-through traffic on local roads. The project consists of construction or realignment of the following interchanges: 1) I-80/I-680/SR 12 West; 2) I-680 and Red Top Road; 3) I-80 and Green Valley Road; 4) I-80/Red Top Road and Business Center Drive; and 5) and SR 12 West and Red Top Road. Construction will also involve widening of I-80 and a new lane on eastbound SR 12, which will require a new bridge and off-ramp over Green Valley Creek, and widening of the culvert over LedgeWood Creek. All proposed in-stream work will occur during the dry season (June 1 through October 15).





Green Valley Creek originates in Green Valley, northwest of Rockville Hills Regional Park, and flow south to Cordelia Slough which is a tributary of Grizzly Bay. At the existing I-80 and I-680/I-80 West Interchange overcrossing, Green Valley Creek flows in a concrete-lined, trapezoidal channel approximately 670 feet long and 70 feet wide. The proposed action will remove the existing I-80 West bridge and replace it with a single span structure measuring approximately 103 feet long and 133 feet wide. Additionally, a single span structure to carry the Green Valley Road off-ramp over the creek will replace the existing I-680/I-80 West interchange.

In-stream construction at Green Valley Creek is proposed to occur between June 1<sup>st</sup> and October 15<sup>th</sup>, over approximately four construction seasons. Construction at Green Valley Creek will occur within a 10-20 year time frame. The first phase will involve construction of the outside (northernmost) westbound lanes on I-80 while maintaining traffic flow on the existing structure. Demolition of the existing I-80 West bridge, and completion of the new I-80 West bridge and the new off-ramp structure will follow.

Piles for the new free-spanning structures will be located at the top of the creek bank and are anticipated to be 12-inch square piles driven to a depth of approximately 70 feet. Approximately 40 piles per abutment will be installed for the westbound I-80 bridge, and approximately 24 piles per abutment will be installed for the new off-ramp structure. Vibratory hammers will be used for pile driving to the maximum practicable extent. Pile driving will only occur during low precipitation periods (June 1 to October 15) and any work occurring before June 1 or after October 15 will be restricted to road or bridge surface only, with water quality control measures in place.

Ledgewood Creek originates in the Vaca Mountains, north of the Solano/Napa County line, and flows south to Paytonia Slough which is a tributary of Grizzly Bay. In the vicinity of the existing SR 12 overcrossing, Ledgewood Creek is confined to a levee-lined trapezoidal channel. Beneath the five-span bridge at SR 12, Ledgewood Creek is conveyed through concrete-lined box culverts. Within the action area, riparian and riverine cover is limited to areas downstream of these culverts. The culverts at SR 12 and Ledgewood Creek is proposed to be extended 15 feet to the south (downstream) to accommodate an additional lane on SR 12; this would permanently impact 15 linear feet of the existing earthen channel. Construction associated with the culvert is expected to last only one season from June 1 to October 15.

Dewatering of both Ledgewood Creek and Green Valley Creek will involve construction of the following in-channel features: 1) temporary cofferdams (made of gravel and fabric) constructed 20-50 feet beyond the limit of bridge/culvert widening; and a pipe diversion to facilitate dewatering of the channel and bypass creek flow; 2) cofferdams constructed utilizing the same methods to facilitate excavation of existing bridge/culvert footings; and 3) falsework placed within the banks and channel to support construction of the cast-in-place concrete box girder structures of the new bridges/culverts. No construction related material (including dewatering and bypass structures) will remain in the channel between October 15 and June 1. When construction is completed, falsework will be removed and any disturbed portions of the creek bed and bank temporarily affected during construction will be restored to pre-project conditions. Additionally, the channel under the new bridges at Green Valley Creek will be restored to an



earthen channel; and a concrete fish passage structure involving a low flow channel and possibly baffles will be constructed in the culvert at SR 12 and Ledgeewood Creek.

Standard best management practices (BMPs) for construction site and sediment and stormwater runoff control will be utilized on this project. Biofiltration swales and biostrips will be used when possible to control runoff. Vegetation will be trimmed rather than removed when possible. Temporarily disturbed riparian areas will be replanted with the native species prior to October 15 to minimize erosion and creek sedimentation, and revegetation will be monitored annually for 3 years.

### **Endangered Species Act**

In its December 8, 2010, letter Caltrans asked for concurrence with a finding that the project is not likely to adversely affect Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*). Reaches of Green Valley Creek and Ledgeewood Creek within the project area are not designated critical habitat for CCC steelhead. Available information indicates the following DPS may occur in the project area:

#### **Central California Coast steelhead Distinct Population Segment (*O. mykiss*) DPS Threatened (January 5, 2006; 71 FR 834).**

The life history of steelhead is summarized in Busby *et al.* (1996). Steelhead typically immigrate to tributaries of San Francisco Bay between November and April, peaking in January and February (Fukushima and Lesh 1998). Adult CCC steelhead are generally not present in streams between May and October; warm summer water temperature and poor habitat quality within the project area further reduce the likelihood of adult steelhead presence during summer months. Juvenile steelhead emigrate episodically from natal streams during fall, winter, and spring high flows. Emigrating CCC steelhead use Green Valley Creek and portions of the San Francisco Bay for rearing and as a migration corridor to the ocean. In summer months, reaches of Green Valley Creek and Ledgeewood Creek within the action area are unsuitable for salmonid rearing due to poor water and habitat quality. Although data regarding the emigration timing of steelhead smolts from Green Valley Creek and Ledgeewood Creek is lacking, steelhead from other streams draining to San Francisco Bay typically emigrate from March through June (Fukushima and Lesh 1998). NMFS assumes that steelhead from Green Valley Creek and Ledgeewood Creek emigrate at the same time and smolting steelhead should be absent during the in-channel construction window of June 1 through October 15.

*O. mykiss* have been collected in Green Valley Creek from the 1950s to the present, and unpublished data indicates *O. mykiss* were collected 1 mile upstream of I-80 in January 1997 (Leidy *et al.* 2005). Therefore, it is likely that steelhead spawning and rearing occur above the I-80 crossing of Green Valley Creek. Beneath I-80 and the I-680/I-80 West interchange Green Valley Creek passes through a 670 foot long, concrete-lined trapezoidal channel and primarily provides a migration corridor for salmonids at this location. This crossing contains an engineered low-flow channel and concrete weirs to enhance fish passage, but lacks significant riparian canopy and natural instream cover due to the concrete channel invert.



Caltrans proposes to restore approximately 300 feet of Green Valley Creek to natural earthen channel and in the process enhance habitat at the site. Proposed actions will not inhibit fish passage at the site, and could provide additional rearing habitat for juvenile salmonids. Salmonids are not likely to be present during summer in-channel construction and pile driving work windows. Construction activities that are proposed to occur when migratory steelhead are likely to be present will be restricted to road or bridge surfaces only, with water quality control measures in place. Therefore, CCC steelhead are not likely to be adversely affected by the proposed actions at Green Valley Creek.

In the vicinity of the SR 12 crossing, levees line both banks of Ledgeewood Creek and the channel has a trapezoidal cross section. SR 12 crosses Ledgeewood Creek over a five-span bridge. At low flows Ledgeewood Creek passes through the second culvert from the east bank, which forms a V-shaped channel to maximize water depths at low flows. No observations of steelhead have been reported in Ledgeewood Creek. The Ledgeewood Creek drainage, however, is adjacent to the Suisun Creek Watershed which is known to support steelhead populations. Furthermore, Chinook salmon have been observed spawning in Ledgeewood Creek above the project site, indicating that Ledgeewood Creek supports migratory habitat for anadromous salmonids (NMFS 2011).

Proposed activities at Ledgeewood Creek involve widening the SR 12 crossing by 15 linear feet to the south. This will permanently impact 15 linear feet of the existing earthen channel by converting it to a concrete invert slab. This action will exacerbate the existing shallow water depth issues at low flows; and concrete low-flow walls and potentially baffles will be constructed to enhance low-flow fish passage of the culvert. Ledgeewood Creek is not designated critical habitat for CCC steelhead, and there is no confirmed documentation of *O. mykiss* within the drainage. The proximity of Ledgeewood Creek to the Suisun Creek watershed, however, indicates migratory steelhead could be present during periods of higher flows. All construction activities associated with the culvert will occur over one dry season, from June 1 to October 15. Therefore, the presence of CCC steelhead is unlikely during proposed construction activities, and CCC steelhead are not likely to be adversely affected by the proposed actions at Ledgeewood Creek. Proposed passage improvements at Ledgeewood Creek will address the addition of 15 linear feet of hardened creek bottom, and potentially make higher quality habitat above the culvert more accessible to CCC steelhead.

Based on the best available information, NMFS concurs with Caltran's determination that threatened CCC steelhead are not likely to be adversely affected by the I-80/I-680/SR 12 Interchange Improvement Project. This concludes informal consultation in accordance with 50 CFR 402.13(a) for the proposed I-80/I-680/SR 12 Interchange Improvement Project in Solano County, California. However, further consultation may be required if: (1) new information becomes available indicating that listed species or critical habitat may be affected by the project in a manner or to an extent not previously considered; (2) current project plans change in a manner that causes an effect to listed species or critical habitat in a manner not previously considered; or (3) a new species is listed or critical habitat designated that may be affected by the action.

### **Magnuson-Stevens Fishery Conservation and Management Act**

The project area is located within an area identified as EFH for Central Valley fall/late fall-run Chinook salmon, managed with the Pacific Coast Salmon Fishery Management Plan under the MSA. As discussed in the above ESA section, no in-water construction will take place when Chinook salmon are likely to be present. However, adverse effects to EFH could occur from increased sedimentation and turbidity following construction activities. While these impacts are considered minor and temporary, NMFS has made the determination that the proposed action would adversely affect EFH for this species. However, the proposed action contains adequate measures to avoid, minimize, mitigate, or otherwise offset any adverse effects to EFH. Therefore, NMFS has no additional EFH Conservation Recommendations to provide.

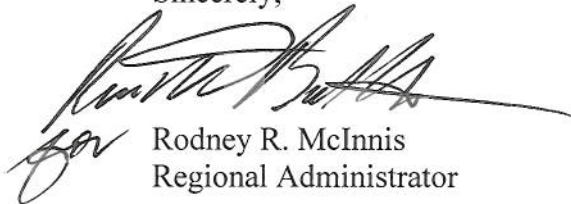
This concludes EFH consultation for Caltrans' proposed I-80/I-680/SR 12 Interchange Improvement Project, Solano County, California. Pursuant to 50 CFR 600.920(l) of the EFH regulations, Caltrans must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH Conservation Recommendations.

### **Fish and Wildlife Coordination Act**

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development [16 U.S.C. 661]. The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage [16 U.S.C 662(a)]. Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. With implementation of the previously-referenced EFH conservation recommendations, NMFS has no further comments to provide.

Please contact Mr. Joseph Heublein at (707) 575-1251, or via e-mail at [joe.heublein@noaa.gov](mailto:joe.heublein@noaa.gov) should you have any questions.

Sincerely,



Rodney R. McInnis  
Regional Administrator

cc: Chris Yates, NMFS, Long Beach  
Bob Hoffman, NMFS, Long Beach  
Bryant Chesney, NMFS, Long Beach  
Ahmad Hashemi, Caltrans District 4  
Copy to File ARN: 151422-SWR-2010-SR00524



## Literature Cited

- Busby, P.J., T.C. Wainwright, G.J. Bryant, L. Lierheimer, R.S. Waples, F.W. Waknitz and I.V. Lagomarsino. 1996. Status Review of West Coast Steelhead from Washington, Idaho, Oregon, and California. United States Department of Commerce, National Oceanic and Atmospheric Administration Technical Memorandum NMFS-NWFSC-27. 261 pages.
- Fukushima L., and E.W. Lesh. 1998. Adult and juvenile anadromous salmonid migration timing in California streams. California Department of Fish and Game 84(3):133-145.
- Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical Distribution and Current Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California. Oakland, CA: Center of Ecosystem Management and Restoration.
- National Marine Fisheries Service (NMFS). Central Valley Chinook Salmon, Current Stream Habitat Distribution Table. <http://swr.nmfs.noaa.gov/hcd/dist2.htm>. Accessed January, 2011.



# NEPA/Section 404 Integration



# Memorandum

*Flex your power!  
Be energy efficient!*

**To:** NEPA/404 Integration Participants  
(See attached distribution list.)

**Date:** March 22, 2007

**File:** 04-Sol-80  
EA-04-0A5300  
I-80/I-680/SR 12 Interchange

**From:** MELANIE BRENT  
Senior Environmental Planner  
Office of Environmental Planning

**Subject:** Summary of NEPA/404 Integration MOU Checkpoint Meeting and Request for Response

## **I-80/I-680/SR 12 Interchange Project**

### **NEPA/404 Integration Participants Thursday March 15, 2007, 10 am –1:30 pm**

The California Department of Transportation (Caltrans), on behalf of the Federal Highway Administration (FHWA), held a Checkpoint Meeting for the above referenced project on Thursday, March 15, 2007 at the Solano County Government Center in the City of Fairfield, from 10 am to 1:30 pm, to discuss the I-80/I-680/SR 12 Interchange Project and the integration requirements of the National Environmental Policy Act (NEPA) and the Clean Water Act (CWA) Section 404, consistent with the memorandum of understanding (MOU) signed into effect in May 2006. Invitations to the meeting along with information packets were sent out on February 23, 2007.

### **Project History**

FHWA, Caltrans, and the Solano Transportation Authority (STA) published a notice of intent (NOI) and notice of preparation (NOP) in May 2003, describing the preliminary alternatives and potential environmental effects of the project and soliciting input from agencies on the scope of the environmental impact report/environmental impact statement (EIR/EIS). A public scoping meeting was also held on May 12, 2003 to seek additional input from agencies and the public on the Draft EIR/EIS. Since that time, FHWA, Caltrans, and STA have conducted numerous field studies of the project's existing conditions and prepared maps of various constraints in the project area. The lead agencies have also prepared a detailed traffic study, a purpose and need statement, developed screening criteria, and have considered a number of preliminary alternatives.



## Meeting Participants

The distribution list below shows the agencies invited to attend the Checkpoint Meeting. The following individuals attended the March 15, 2007 meeting:

1. Mike Monroe, U.S. EPA
2. Carolyn Muhlvihiill, U.S. EPA
3. Hal Durio, U.S. Army Corps of Engineers
4. Brendan Thompson, San Francisco Bay Regional Water Quality Control Board
5. Leland Dong, FHWA
6. Dale Jones, Caltrans Headquarters
7. Melanie Brent, Caltrans District 4
8. Nicolas Endrawos, Caltrans District 4
9. Joe Douglas, Caltrans District 4
10. Ahmad Hashemi, Caltrans District 4
11. Janet Adams, Solano Transportation Authority
12. Dale Dennis, Solano Transportation Authority
13. Mike Lohman, Mark Thomas & Company
14. Andrea Glerum, Nolte Associates
15. Matt Henry, Fehr & Peers
16. Scott Steinwert, Circle Point
17. Chris Colwick, Circle Point
18. Maggie Townsley, Jones & Stokes
19. Lisa Webber, Jones & Stokes

A summary of the meeting is provided below. For agencies that could not attend, additional materials (i.e., hand-outs from the March 15 meeting) are enclosed in this meeting summary and request for comments.

## Request for Response

Pursuant to Item 11 in Section III, *The NEPA/404 Integration Process*, in the signed NEPA/404 MOU, Caltrans is requesting the signatory federal agencies' response to:

- the Purpose and Need, and
- the alternatives proposed for inclusion in the Draft EIR/EIS.

The type of response currently requested depends on the agency and the Checkpoint—as shown below (and identified in Table 1 of the signed MOU for the *NEPA and Clean Water Act Integration Process for Federal Aid Surface Transportation Projects in California* [signed 2006]). In addition, the non-federal agencies invited to participate (i.e., the Regional Water Quality Control Board and the California Department of Fish and Game) are encouraged to provide comments on the Purpose and Need Statement and the alternatives proposed for inclusion in the Draft EIR/EIS. Table 1 summarizes the only types of response an agency may give at a checkpoint.

**Table 1. Types of Response by Agency and Checkpoint**

| Agency                        | Purpose and Need | Alternatives   |
|-------------------------------|------------------|----------------|
| U.S. Corps of Engineers*      | Agree/Disagree   | Agree/Disagree |
| U.S. EPA*                     | Agree/Disagree   | Agree/Disagree |
| USFWS*                        | Comment          | Agree/Disagree |
| NMFS*                         | Comment          | Comment        |
| RWQCB                         | Comment          | Comment        |
| CDFG                          | Comment          | Comment        |
| *Identifies signatory agency. |                  |                |

### Next Steps

Per the NEPA/404 MOU, each agency has 30 days (i.e., by April 23, 2007) to review and provide written responses to this Request for Response. Within 90 days of April 23, 2007, Caltrans will send each agency a letter identifying the status of any issue that received a negative comment or disagreement from the agencies.

Please call me at 510.286.5231 if you have any questions. We look forward to receiving your comments by Monday, April 23. Thank you!

## **Distribution List**

### **Project Sponsors**

#### **Federal Highway Administration**

California Division Office

650 Capitol Mall, #4-100

Sacramento, CA 95814

**Attention:** Mr. Leland Dong, 916.498.5860

#### **Federal Highway Administration**

California Division Office

650 Capitol Mall, #4-100

Sacramento, CA 95814

**Attention:** Larry Vinzant, 916.498.5040

#### **Caltrans District 4**

111 Grand Avenue

P. O. BOX 23660

Oakland, CA 94623-0660

**Attention:** Melanie Brent, Office Chief, Environmental Branch, 510.286.5231

### **Federal Agencies**

#### **National Oceanic and Atmospheric Administration**

##### **National Marine Fisheries**

777 Sonoma Avenue, Room 325

Santa Rosa, CA 95404

**Attention:** Gary Stern, San Francisco Bay Team Leader, 707.575.6060

#### **U.S. Army Corps of Engineers**

1455 Market Street, Regulatory Branch

San Francisco, CA 94103-1398

**Attention:** Jane Hicks, Project Manager, 415.977.8438

#### **U.S. Army Corps of Engineers**

1455 Market Street, 16<sup>th</sup> Floor

San Francisco, CA 94103-1398

**Attention:** Hal Durio, Caltrans Liaison, 415.503.6785



NEPA/404 Integration Participants  
March 22, 2007  
Page 5

**U.S. Fish and Wildlife Service**

2800 Cottage Way, Room 2605  
Sacramento, CA 95825

**Attention:** Cay Goude, 916.414.6600

**U.S. Environmental Protection Agency, Region 9**

75 Hawthorne Street  
San Francisco, CA 94105  
Mail Code CED-2

**Attention:** Connell Dunning, Environmental Review Office, 415.947.4161

**U.S. Environmental Protection Agency, Region 9**

75 Hawthorne Street  
San Francisco, CA 94105  
Mail code WTR-8

**Attention:** Mike Monroe, Wetlands, 415.972.3453

**U.S. Environmental Protection Agency, Region 9**

75 Hawthorne Street  
San Francisco, CA 94105  
Mail code CED-2

**Attention:** Carolyn Mulvihill, NEPA Review, 415.972.3597

**State Agencies**

**Regional Water Quality Control Board**

SF Bay Regional Water Quality Control Board  
1515 Clay St, Suite 1400  
Oakland, CA 94612

**Attention:** Brendan Thompson, Environmental Specialist, 510.622.2506

**California Department of Fish and Game**

DFG, Central Coast-Region 3  
P.O. Box 47  
Yountville, CA 94599

**Attention:** Robert W. Floerke, Regional Manager, 707.944.5517

**I-80/I-680/SR 12 Interchange Project**

**NEPA 404 MOU Checkpoint Meeting  
March 15, 2007  
Summary of Discussion**

Caltrans, on behalf of the FHWA, hosted a Checkpoint meeting to discuss the I-80/I-680/SR 12 Interchange Project and the integration requirements of NEPA, as well as CWA Section 404, consistent with the MOU signed into effect in May 2006.

The purpose of the March 15, 2007 meeting was to present an overview of the project, discuss the purpose and need, screening criteria, and preliminary alternatives, and seek input from the signatory agencies on the NEPA/404 MOU process.

This meeting summary below is intended to provide an overview of the comments and questions discussed at the meeting grouped by topic.

**I. Project Background**

Janet Adams of the STA provided an overview of the project background, including the project's origination in the context of the STA's Comprehensive Transportation Plan and the I-80/I-680/I-780 Major Investment and Corridor Study.

**Discussion Questions:**

No discussion questions.

**II. Purpose and Need**

Scott Steinwert of CirclePoint provided an overview of the development of the Purpose and Need statement including current and future traffic demands, deficient levels of service, traffic diversion to local roads, and accident data in the project area. Mr. Steinwert also provided an overview of the public participation during the Scoping process.

**Discussion Questions:**

- What are the biological differences between the primary and secondary marsh? There is no specific biological difference, but in most instances, the secondary marsh is not wet and is more of an upland environment.
- Where are potential Steelhead runs? Rivers or creeks include Suisun, Jameson, Ledgewood, and American Canyon.
- Have you found vernal pools? There are some areas that could be classified as vernal pools.

- Could you find Vernal Shrimp? Yes.

### III. Alternatives Development and Screening

Maggie Townsley, of Jones & Stokes, reviewed the environmental constraints with the project area and explained how these were considered in the evaluation of alternatives. Dale Dennis of STA provided details of the alternatives development and screening process including eight (8) alternatives considered but withdrawn from further study as part of the Tier 1 analysis.

#### **Discussion Questions**

- Where is the most/greatest environmental impacts? North of I-80 there is a biological mitigation site that was created as part of a local development project, and in the area of SR 12 East there are Contra Costa goldfields as well as a large wetlands area.
- Where are the riparian sections? Riparian habitat is located along the creeks in the area. The riparian zone along each creek is very narrow due to the surrounding agricultural and suburban development patterns.
- Are any of the habitat areas in the screening matrix overlapping? Yes, some habitat may overlap such as riparian areas overlap waters of the US.
- How did you calculate the delineated acreage? The waters of the US and wetlands that have been mapped were done so through field surveys, using aerial photos and from prior delineations done in the project area for other projects. A formal delineation will be done as part of the EIS/EIR, but the approach used to-date should provide a conservative estimate.
- In the matrix, you should include vernal pools and seasonal wetlands under regulated habitat as these are under Corps jurisdiction.
- How certain are you SR 12 East will be part of the final project? In developing the project scope, it became clear that improvements would be needed on SR 12 East to ensure that traffic would not back up on SR 12 East to a point that it would affect I-80 and the Interchange. So improvements on SR 12 East have been included as part of the project. The project will most likely be built in phases, and improvements on SR 12 East would probably be built as a separate phase of the overall interchange improvements.
- Will SR 12 East eliminate the signalized intersection at Pennsylvania and the railroad? Yes.
- Suisun Creek is essential habitat for the Chinook salmon. Yes, it was inadvertently left out of the matrix.



#### IV. Recommended Alternatives

Mike Lohman of Mark Thomas & Company presented the four (4) Alternatives A-D, studied in the Tier 2 screening and the two (2) options for SR 12 East. Maggie Townsley reviewed the Tier 2 Screening Matrix.

##### Discussion Questions

- How will Alt. C affect traffic operations and how will phasing work? Alt C provides the most improvement and allows for more effective phasing due to realigning the interchange.
- What is the public's reaction to Alt B? The public has expressed concern about possibly losing the connection from 680 to SR 12 west.
- How and why are you looking at ways to connect Fairfield and Suisun City? Suisun City has expressed concern that a direct connection with Fairfield is vital for economic reasons.
- What will happen to the ramp area if Webster/Jackson ramps are removed? The existing ramps would be removed and this area would be excess right-of-way that could be used for mitigation.
- How flexible is your design for taking Meyer Way through the Goldfields? There is some flexibility in the precise alignment of Meyer Way. The alignment would need to consider potential land use changes in this area and try to support the locally planned land-use pattern.
- What is the difference in Option 1 and Option 2 for SR 12 East regarding impacts to I-80 mainline? No discernable difference.
- What is the cost difference between Option 1 and Option 2? We currently only have rough estimates; the costs are equivalent.
- What about having Goldfields between the roadways? It may be possible to design the interchange area on SR 12 East to avoid direct impacts to the Goldfields; however, there still may be some indirect effect on the plants.
- What is the status of the Goldfields? They are a federally listed endangered species.
- What is your design year? 2035.
- Clarification on the no-build option: This would still include planned or necessary improvements to the highway system. These improvements, however, are very limited within the planning horizon.
- What will happen to the portion of I-680 that is no longer used as freeway in Alt C? It will be retained for use as a local road, but will not connect to I-80.
- What is the difference in effects that the alternatives have on the primary marsh? None of the alternatives would directly affect the primary marsh.
- Which alternatives provide for greater stormwater treatment such as biostrips? We haven't looked at that in great detail, but Alt C could have greater opportunities to address water quality. Consideration will be given to groundwater levels, swales, and other related issues.
- In the matrix, what does Objective ED3 and Policy ED 2.1 and 2.2 refer to? These are the General Plan objectives and policies regarding economic development and land use for the city and county.

- Do your cost estimates include mitigation? We have included allowances for mitigation.
- The intent of NEPA 404 MOU Checkpoint meetings is to get the resource agencies involved early on in the process of developing a Purpose and Need and alternatives. Resource agencies would have preferred this meeting 6-12 months ago. With that said, the recommendation to drop Alternatives A and D seems to be well thought out.
- Concerned about marsh impacts, but current alternatives seem to minimize or eliminate impacts to marsh.
- Regional Water Quality Control Board is concerned with riparian impacts. Can you identify restoration of creeks as possible mitigation? Restoration of riparian areas along local creeks could be included as a mitigation requirement to reduce project-specific impacts. There may be several locations within the project area where this approach could be feasible.
- Would like to see an addition to the Purpose and Need: Avoid/minimize environmental impacts to sensitive habitat, including the Suisun Marsh. (Noted, and will be included.)
- For conceptual mitigation plans, please talk to the resource agencies early in the process of considering possible mitigation sites.

#### Next Steps

Resource agencies will have approximately 4 weeks to review the materials and request additional information. On March 22, Caltrans will send a letter to the resource agencies, requesting comments on the Purpose and Need and on the recommended alternatives by April 23, 2007.







Linda S. Adams  
Secretary for  
Environmental Protection

# California Regional Water Quality Control Board

## San Francisco Bay Region

1515 Clay Street, Suite 1400, Oakland, California 94612  
(510) 622-2300 • Fax (510) 622-2460  
<http://www.waterboards.ca.gov/sanfranciscobay>



Arnold Schwarzenegger  
Governor

Date: JUN 05 2007  
File No.: 2128.04 (BT)

*MB*  
Ms. Melanie Brent  
California Department of Transportation  
PO Box 23660  
Oakland, CA. 94623-0660

**SUBJECT: Comments Relating to the I-80/I-680/SR 12 Interchange Project NEPA/404 Integration MOU Checkpoint Meeting**

Dear Ms. Brent:

The Regional Water Quality Control Board (Water Board) would like to thank the California Department of Transportation (Department) and the Solano Transportation Authority (STA) for giving staff the opportunity to participate in the I-80/I-680/SR 12 Interchange Project (Project) NEPA/404 meeting held on March 15, 2007. We look forward to participating in future meetings and offer the following comments.

As you know, there is a significant amount of new and redevelopment either occurring or planned to occur in the vicinity of the Project. It is the Water Board's intent to ensure that the beneficial uses of Suisun, Green Valley, Dan Wilson and Ledgewood Creeks, and Suisun Marsh and Bay are protected as development projects in the area move forward. The proposed Project has the potential to impact beneficial uses through permanent impacts to federal and state jurisdictional wetlands and waters, as well as through the introduction of new and impervious surfaces.

At the meeting, three "preferred-build" alternatives were presented that included permanent impacts to federal jurisdictional wetlands and other jurisdictional waters between 6.3 and 10.2 acres. It is staff's understanding that the majority of the impacts will be to riparian waters. After the Department and STA demonstrate full avoidance and minimization of potential impacts to wetland and waters, the Water Board will consider mitigation options. Currently, there are not mitigation banks in the Project's service area offering riparian mitigation credits acceptable to the Water Board. As such, the Department and the STA should evaluate mitigation opportunities from a watershed perspective and identify riparian restoration needs within the local area. Staff recommends working with either the Solano County Resource Conservation District or another local agency, such as the Solano Land Trust, to identify potential mitigation projects. Please note that the Water Board primarily evaluates impacts to riparian waters and the associated compensatory mitigation in terms of linear feet, as opposed to acres. Impacts to such waters

**California Environmental Protection Agency**



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should be characterized in both areal and linear extents in the Project's application for Water Quality Certification.

The Water Board requires that projects within the Department's right-of-way provide appropriate treatment of stormwater runoff from the entirety of the area of new and any redeveloped impervious surface. The Water Board recommends the Department identify on-site treatment options for roadway runoff as soon as possible, in the early phases of Project design.

If you have any questions, please contact Brendan Thompson of my staff at (510) 622-2506, or via e-mail to [BThompson@waterboards.ca.gov](mailto:BThompson@waterboards.ca.gov).

Sincerely,



Keith H. Lichten, P.E.  
Senior Engineer

cc: Mr. Mike Monroe, USEPA, San Francisco  
Mr. Hal Durio, U.S. Army Corps of Engineers, San Francisco  
Ms. Anna Holmes, California Department of Fish and Game, Stockton  
Mr. John Cleckler, U.S. Fish and Wildlife Service, Cottage Way, Sacramento  
Ms. Jodie Salz, Solano County Resource Conservation District, 1170 N. Lincoln St., Suite 110 • Dixon, California 95620  
Ms. Janet Adams, Solano Transportation Authority, One Harbor Center, Suite 130, Suisun City, CA 94585  
Mr. Dale Dennis, Solano Transportation Authority  
Mr. Rob Goldstein, Solano Land Trust, 1001 Texas St., Suite C, Fairfield, CA 94533  
Mr. Hardeep Takhar, California Department of Transportation, Oakland



**DEPARTMENT OF THE ARMY**  
**SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS**  
**1455 MARKET STREET**  
**SAN FRANCISCO, CALIFORNIA 94103-1398**

APR 11 2007

REPLY TO

Regulatory Branch

SUBJECT: File Number 400401N

Melanie Brent  
Department of Environmental Planning  
California Department of Transportation  
111 Grand Avenue  
Oakland, California 94623-0660

Dear Ms. Brent:

This letter is written in response to your memorandum of March 22, 2007 requesting the U.S. Army Corps of Engineers' (USACE) signatory response to the purpose and need and proposed alternatives of the I-80/I-680/SR12 Interchange Project in Solano County for inclusion in the Draft EIR/EIS pursuant to Item 11 in Section III, NEPA/404 Integration Process, defined in the signed NEPA/404 MOU. This project and the issues were discussed at the Checkpoint Meeting held on March 25, 2007 in Fairfield, California.

The USACE appreciates the opportunity to make comments on the purpose and need and the alternative studies that were demonstrated at the meeting. The USACE at this time however is unable to respond in agreement or disagreement until there is a USACE verified jurisdictional determination of the waters of the U.S. and wetlands that fall within the proposed boundaries of the project.

The USACE acknowledges the hard work you demonstrated in your well organized and informative meeting. The purpose and need was clearly demonstrated and the alternative analysis seemed inclusive. The USACE looks forward to working with you in the near future on the jurisdictional verification process.

Should you have any questions regarding this matter, please call Hal Durio of our Regulatory Branch at 415-503-6785. Please address all correspondence to the Regulatory Branch and refer to the File Number at the head of this letter.

Sincerely,

A handwritten signature in cursive script that reads "Jane M. Hicks".

Jane M. Hicks  
Chief, Regulatory Branch





**DEPARTMENT OF TRANSPORTATION**

P. O. BOX 23660  
OAKLAND, CA 94623-0660  
PHONE (510) 286-5231  
FAX (510) 286-5600  
TTY 711



*Flex your power!  
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20 May 2009

Ms. Andrea Meier, Regulatory Project Manager  
U. S. Army Corps of Engineers  
1455 Market Street, 16<sup>th</sup> Floor  
San Francisco, CA 94103-1398

Dear Ms. Meier,

The California Department of Transportation (Caltrans), under its assignment of NEPA responsibilities from the Federal Highway Administration (FHWA) per 23 U. S. C. 237, held a second checkpoint meeting for the Interstate 80 (I-80)/Interstate 680 (I-680)/State Route 12 (SR 12) Interchange Project at the offices of the Solano Transportation Authority in Suisun City, on Tuesday, 10 February 2009, from 2:00 to 4:00 pm. The purpose of the meeting was to present the alternatives for inclusion in the Draft Environmental Impact Statement for the project and the criteria for the selection of the alternatives.

**Meeting Participants**

Appendix A lists the participants at the meeting.

**Meeting Summary**

A summary of the meeting is provided as Appendix B. For agencies that did not attend, additional materials (hand-outs from the February 10 meeting) are enclosed.

**Request for Response**

Pursuant to Item 11 in Section III, *The NEPA/404 Integration Process*, in the signed NEPA/404 MOU, Caltrans is requesting the signatory federal agencies' response to:

- the alternatives proposed for inclusion in the Draft EIR/EIS.

The type of response currently requested depends on the agency and the Checkpoint—as shown below (and identified in Table 1 of the signed MOU for the *NEPA and Clean Water Act Integration Process for Federal Aid Surface Transportation Projects in California*

*"Caltrans improves mobility across California"*

[signed 2006]). In addition, the non-federal agencies invited to participate (i.e., the Regional Water Quality Control Board and the California Department of Fish and Game) are encouraged to provide comments on the alternatives proposed for inclusion in the Draft EIR/EIS. Table 1 summarizes the only types of response an agency may give at a checkpoint.

**Table 1. Types of Response by Agency and Checkpoint**

| Agency                        | Purpose and Need | Alternatives   |
|-------------------------------|------------------|----------------|
| U.S. Army Corps of Engineers* | Agree/Disagree   | Agree/Disagree |
| U.S. EPA*                     | Agree/Disagree   | Agree/Disagree |
| USFWS*                        | Comment          | Agree/Disagree |
| NMFS*                         | Comment          | Comment        |
| RWQCB                         | Comment          | Comment        |
| CDFG                          | Comment          | Comment        |
| *Identifies signatory agency. |                  |                |

### Next Steps

Per the NEPA/404 MOU, each agency has 30 days (by 22 June 2009) to review and provide written responses to this Request for Response. Within ninety days of 22 August 2009, Caltrans will send each agency a letter identifying the status of any issue that received a negative comment or disagreement from the agencies.

Please call me at 510.286.5231 if you have any questions. We look forward to receiving your comments by 22 June. Thank you!

Sincerely,



MELANIE BRENT  
District Office Chief  
Office of Environmental Analysis



## **Distribution List**

### **Project Sponsors**

#### **Caltrans District 4**

111 Grand Avenue

P. O. Box 23660

Oakland, CA 94623-0660

**Attention:** Melanie Brent, Office Chief, Environmental Branch, 510.286.5231

#### **Caltrans Headquarters**

##### **Division of Environmental Analysis**

1120 N Street

Sacramento, CA 95814

**Attention:** Dale Jones, Environmental Coordinator (Districts 4 and 7), 916.531.0058

### **Federal Agencies**

#### **National Oceanic and Atmospheric Administration**

##### **National Marine Fisheries**

777 Sonoma Avenue, Room 325

Santa Rosa, CA 95404

**Attention:** Jacqueline Pearson-Meyer, 707.575.6057

#### **U.S. Army Corps of Engineers**

333 Market Street, 8<sup>th</sup> Floor

San Francisco, CA 94105

**Attention:** Andrea Meier, Regulatory Project Manager, 415.503.6798

#### **U. S. Fish and Wildlife Service**

2800 Cottage Way, Room 2605

Sacramento, CA 95825

**Attention:** Cay Goude, 916.414.6600

#### **U. S. Environmental Protection Agency, Region 9**

75 Hawthorne Street

San Francisco, CA 94105

Mail Code CED-2

**Attention:** Carolyn Mulvihill, Environmental Review Office, 415.947.3554

Ms. Andrea Meier  
20 May 2009  
Page 4

**U.S. Environmental Protection Agency, Region 9**  
75 Hawthorne Street  
San Francisco, CA 94105  
Mail code WTR-8  
**Attention:** Melissa Scianni, Wetlands, 415.972.3821

**State Agencies**

**Regional Water Quality Control Board**  
SF Bay Regional Water Quality Control Board  
1515 Clay St, Suite 1400  
Oakland, CA 94612  
**Attention:** Brian Wines, 510.622.5680

**California Department of Fish and Game**  
DFG, Central Coast-Region 3  
P.O. Box 47  
Yountville, CA 94599  
**Attention:** Greg Martinelli, 707.944.5570

**Copy for:**

**Federal Highway Administration**  
California Division Office  
650 Capitol Mall, #4-100  
Sacramento, CA 95814  
**Attention:** Mr. Lanh Phan, 916.498.5046

## APPENDIX B

### **I-80/I-680/SR 12 Interchange Project NEPA 404 MOU Checkpoint Meeting #2 February 10, 2009 Summary of Discussion**

The California Department of Transportation (Caltrans), under assignment from the Federal Highway Administration (FHWA), hosted a Checkpoint meeting to discuss the I-80/I-680/SR 12 Interchange Project and the integration requirements of the National Environmental Policy Act (NEPA) and the Clean Water Act Section 404, consistent with the memorandum of understanding (MOU) signed into effect in May, 2006.

The purpose of the February 10, 2009 meeting was to present an overview of the project alternatives, discuss the purpose and need, present expected impacts on biological and aquatic resources, and seek input from the signatory agencies on the NEPA/404 MOU process.

This meeting summary below is intended to provide an overview of the comments and questions discussed at the meeting grouped by topic.

#### **I. Purpose of Checkpoint Meeting**

Maggie Townsley provided an overview of the previous checkpoint meeting in March 2007, which addressed the screening process and the purpose and need. She then discussed the purpose of this meeting, which is to obtain input and request concurrence regarding the Alternatives to be addressed in the Draft Environmental Document. She stated that the purpose and need for the project has not changed since the 2007 meeting and that that public draft document was on an aggressive schedule, to be released in the late summer/early fall of 2009.

#### **Discussion Q and A:**

No discussion questions.

#### **II. Project Description**

Mike Lohman of Mark Thomas & Company provided an overview of the two full build project alternatives and their first phases (Phase 1s). Maggie Townsley noted that the project footprints haven't changed substantially in the last 2 years; the project alternatives have been refined.

#### **Discussion Q and A:**

- **Question:** (EPA) What about the I-80 Eastbound Truck Scales and Jameson Canyon projects?

**Answer:** They are separate projects. A copy of the I-80 Eastbound Truck Scales EIR/EA was provided.

- **Question:** Was there originally a third alternative?

**Answer:** There were actually two additional alternatives discussed at the March 2007 Checkpoint Meeting, Alternatives A & D. Alternative A, which was similar to Alternative B, proposed outside connectors for the I-80/I-680 connection. Based on the traffic operations analysis for Alternative A, a consensus was reached that Alternative A would not perform satisfactorily and was therefore screened out. A fourth alternative (D) proposed a raised viaduct along I-80 from I-680 to Suisun Valley Road. This alternative was not well received by the public and was not cost effective. *Note: After researching information provided at the previous March 2007 Checkpoint Meeting, it should*



## APPENDIX B

*be noted that Alternatives A and D were discussed as having already been screened out. It was made clear at that time that only Alternatives B and C would be evaluated in the EIR/EIS.*

- **Question:** Have Alternatives B and C changed much in the past two years?

**Answer:** Alternatives B & C have been refined, but have not changed substantially. The biggest changes are at Red Top Road, where the interchange has been moved to the west and at Lopes Road where the road alignment has changed. Additionally, the Options on SR 12 East were conceptual at the last meeting and those have been refined.

- **Question:** Where do the "options" begin and are they interchangeable?

**Answer:** The options start just east of the I-80/SR 12 East interchange and they are interchangeable. They have been paired (Alternative B/Option 2 and Alternative C/Option 1) for the purposes of analysis. Impacts will be separated out so that they can be easily paired differently at the end of the process, if a different pairing is determined to be preferred.

### III. Sensitive Plant and Animal Species

Shahira Ashkar of ICF Jones and Stokes reviewed the potential sensitive plant and animal species habitat within the project area. She noted that habitat for the following species were located within the project area:

- California red-legged frog
- Valley elderberry longhorn beetle
- Fairy shrimp
- Steelhead/Chinook
- Contra Costa Goldfields

Habitat for salt marsh harvest mouse and Delta smelt was evaluated, but none was found.

#### **Discussion Q and A:**

- **Question:** What about tiger salamander and Delta green ground beetle? (Caltrans)

**Answer:** Tiger salamander was evaluated and no habitat was found. Unsure about Delta green ground beetle, but Caltrans and ICF J&S will follow up with the project biologist. *NOTE: J&S project management staff followed-up with the ICF J&S biologist after the NEPA/404 meeting and determined that no habitat for either species was located within the project area.*

### IV. Aquatic Resources

Lisa Webber of ICF Jones & Stokes presented a summary of the wetland delineation efforts and results. She discussed the types of resources present within the project area and their locations and referenced the table provided in the hand out. Maggie Townsley summarized the acreages of jurisdictional and non-jurisdictional wetlands.

#### **Discussion Q and A:**

- **Question:** How will Alternative C affect traffic operations and how will phasing work?

**Answer:** Alternatives B and C generally provide the same level of traffic operational improvement and Alternative C allows for more effective phasing due to realigning the interchange.

- **Question:** What is the public's reaction to Alternative B?

**Answer:** The public expressed concern about possibly losing the freeway connection from I-680 to SR 12 west.



## APPENDIX B

- **Question:** Do we have the total waters in the project area, as opposed to those affected, listed somewhere?

**Answer:** Lisa Webber stated that the total waters within the project area consisted of the temporary and permanent impacts, but would check with GIS. *Note: ICF J&S staff followed up with GIS staff and obtained the final acreages from the Wetland Delineation. The total jurisdictional waters delineated = 43.49 acres. The total non-jurisdictional waters delineated = 9.82 acres. The breakdown of the acreages is shown in Exhibit A of the Wetland Delineation.*

- **Question:** Is there a mitigation site for Business Center Drive that will be impacted by this project?

**Answer:** Yes.

- **Question:** Would the USACE jurisdiction have to be reviewed at later phases?

**Answer:** Yes, unless STA got a Preliminary Jurisdiction.

- **Question:** Have any adjacent properties been considered for mitigation?

**Answer:** To date, they have not been considered. There are USFWS approved banks in the area, but no USACE approved banks. On-site mitigation in the immediate watershed would be most desirable to the USACE and RWQCB. There are some good wetlands east of I-680 and also south of the existing eastbound truck scales that could be considered for on-site mitigation.

### V. Summary of Project Approach

Dale Dennis of STA provided an overview of the project schedule and approach. He noted that the environmental document will analyze the ultimate alternatives even though they will not be constructed for years, so that all potential impacts will be identified and considered. Melanie Brent of Caltrans noted that Caltrans will be seeking a ROD for the fundable first phase.

#### Discussion Q and A:

- **Question:** USEPA asked about the relative time frame for construction?

**Answer:** Phase 1 is expected to be constructed in the next 5 to 10 years, with the full build well beyond that.

- **Question:** Are any portions of this project in the RTP or TIP?

**Answer:** The Phase 1 alternatives are in the RTP. The full build projects are expected to cost 1.5 to 2 billion dollars and will take time to finance. The Phase 1 alternatives cost in the neighborhood of \$650-700 million.

- **Question:** Would mitigation be for Phase 1 only?

**Answer:** The environmental document would look at the ultimate projects at the same level of detail as the fundable Phase 1 alternatives. All surveys cover the entire project area. Impacts would be analyzed for both ultimate alternatives and the Phase 1 alternatives. It would only be possible to mitigate for Phase 1 because the construction of the ultimate project is so far in the future. It would be necessary to do a revalidation or supplemental (depending on how much had changed) prior to the construction of future phases.

- **Question:** Would STA/Caltrans be seeking permits all at once or along the way? If along the way, does that rule out considering overall mitigation?

**Answer:** Permits would be sought along the way. Because of the size of the project and the availability of funding later phases may be years/decades away and conditions may change. Caltrans, STA, and the County have been looking at options for mitigating impacts for multiple projects in the area at a single site, so they are looking at large scale mitigation, but it would be necessary to do so in phases. The environmental document will disclose impacts of the total project and will have proposed mitigation for only the Phase 1 alternatives. It will also consider cumulative impacts and possible mitigation.

## APPENDIX B

The BA will provide specific mitigation for the Initial Construction Phase of the Phase 1 alternative and conceptual mitigation for future phases. This approach could be used for other resource areas.

### VI. Next Steps

Caltrans will send a letter to the signatory/participating agencies requesting agreement/disagreement on the Proposed Alternatives within 30 days

No further formal meetings will precede the circulation of the draft environmental document, but informal meetings can be scheduled if necessary or requested.

Other Discussion Q and A:

- **Question:** USACE noted structures in ROW. Are there any issues with condemnation?

**Answer:** There are displacements under both alternatives. Under Alternative B there are primarily commercial displacements in the Cordelia area and under Alternative C there are primarily industrial displacements in the area south of I-80. The only residential displacement that would occur under both alternatives is in the vicinity of the westbound truck scales. Property owners associated with the industrial displacements have been contacted and there has not been any significant opposition expressed to date. In fact, several property owners have indicated they see the merits of Alternative C. Both of these alternatives follow existing roads to a large extent, which minimizes other impacts.





DEPARTMENT OF THE ARMY  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

AUG 6 - 2009

REPLY TO  
ATTENTION OF

Regulatory Division

SUBJECT: File Number SPN-2007-400401 S

Ms. Melanie Brent  
Office of Environmental Analysis  
California Department of Transportation  
Post Office Box 23660  
Oakland, California 94623-0660

Dear Ms. Brent:

This letter is written in response to your request for comments following an interagency alternatives scoping meeting on February 10, 2009, for the Interstate 80/Interstate 680/State Route 12 Interchange Project. During that meeting, you requested that we consider two "build alternatives", impacts associated with the first phase, and to provide feedback on which alternative would likely result in the least impact to aquatic resources. You also requested that we provide direction on which alternative we believe warrants additional engineering design and development. In addition to responding to those requests, we would like to take this opportunity to outline the overall project purpose that we believe should be used in developing an alternatives analysis that satisfies the US EPA's Clean Water Act (CWA), Section 404(b)(1) Guidelines. We also will summarize what we recommend be included in the scope of analysis in the draft environmental impact statement (DEIS) to be prepared later this year.

*Preliminary Alternatives Evaluation*

We were unable to reach a determination on which on-site alternative we would select to be a preliminary preferred alternative based on the information we have available. The two combinations of west-end "alternatives" and east-end "options" do not appear to have comparable differences in impacts to waters of the U.S., therefore, we had difficulty in ranking those alternatives based on impacts to areas under our jurisdiction. We also did not have adequate information to balance impacts to waters of the U.S. with other factors such as impacts to water quality and endangered species. For instance, Alternative C, Option 1, appears to have the least permanent and temporary impacts to waters of the U.S., but it would have the most impacts to water quality amongst the other alternatives, based on information in the "I-80/I-680/SR-12 Interchange Project Alternatives Screening Matrix (Tier 2)", received in March 2007. We would also like to point out that now that the wetland delineation has been verified, there will likely be differences in the estimated impacts to waters of the U.S. for the "alternatives" and "options" presented.

Generally, we would expect to have a higher level of information on the environmental setting and impacts in order to make a preliminary selection of the preferred alternative under the SAFETEA-LU authority, National Environmental Policy Act (NEPA), and the CWA Section 404(b)(1) Guidelines. A draft environmental assessment or DEIS would generally provide the necessary information to determine what the effects are proposed to the human environment, including impacts to waters of the U.S. The information we have available at this time is limited to the Alternatives Screening Matrix and the project information presented to us in the February 10, 2009, meeting. We are unable to make any determinations of what proposed impacts may be significant or to make a determination of what we believe would be preliminarily the least environmentally damaging practicable alternative (LEDPA).

If you are still interested in having the Corps make a determination of a preliminary preferred alternative at this time, we would recommend that you update impact maps depicting waters of the U.S. for each “alternative” and “option”. Water quality impacts in the matrix should also include an assessment of increased runoff from impervious surfaces. We would also appreciate a clarification of the numbers presented in the Alternatives Screening Matrix for delays, cut-through traffic, truck volumes, and safety. Identifying a range of acceptable levels of service or “vehicle-hours”, would be very helpful. Also, explaining the significance of the numerical differences across alternatives in the various categories in the matrix would be helpful in determining the extent to which alternatives meet the project purpose and impact the environment.

#### *Overall Project Purpose*

The project purpose guides the scoping and determines the range of alternatives to be considered for impacts and alternatives analysis under NEPA and under the CWA Section 404(b)(1) Guidelines. Based on the information provided, the overall project purpose is to reduce congestion and improve circulation through the I-80/I-680/SR-12 corridor for local drivers, commercial traffic, and other travelers.

#### *Scope of Analysis for Evaluating Impacts to Waters of the U.S. and Other Elements of the Human Environment*

In general, the scope of analysis depends on the resource or element of the human environment being evaluated. The geographic scope of analysis for direct impacts to waters of the U.S., should include the project footprint, access roads, and staging areas. The geographic scope of analysis for indirect impacts should include the project area on the verified wetland delineation maps as well as environmentally sensitive areas, resources, and surrounding communities that may be impacted in part or in whole by the project. We encourage coordination with the Corps, the U.S. Environmental Protection Agency, and other resource



agencies as applicable, to determine the scope of the studies to be completed to evaluate the project's impacts in preparation of the DEIS.

Traffic congestion in the corridor has resulted from extensive regional population growth, a tripling of population locally since the 1960's, poorly planned local freeway access, and substantial increases in commercial truck traffic. Policy decisions related to land use patterns in Solano County and nearby areas like Yolo County, Sacramento County, and other parts of the north Bay Area also influence traffic conditions in the corridor. Also, economic and societal trends have impacted traffic in the corridor since it was first designed. These trends include increases in the number of cars per household, the decreasing affordability of housing near large employment centers in the Bay Area, the increasing average distance people are willing to travel for work, and the increased amount of discretionary time and income people have for recreational activities. Based on this information, the geographic scope of analysis for indirect and cumulative effects to traffic, circulation, land use, and economics, in the DEIS should a broader area than the I-80/I-680/SR-12 corridor. We recommend that the DEIS include a brief discussion of how these factors have contributed to traffic issues in the corridor and an evaluation of how these trends may further impact traffic in the corridor.

Traffic impacts from other large transportation projects in the region, such as the Jepson Parkway, North Connector Project, the high occupancy vehicle (HOV) lanes system that is currently under construction, and Fairfield Multi-modal Transportation Center, should also be considered in the cumulative impacts analysis. Even the California High-Speed Rail project may affect traffic in the Interstate 80 corridor, as noted in the Bay Area Council Economic Institute report, "California High-Speed Rail Economic Benefits and Impacts in the San Francisco Bay Area", dated October 2008. While Solano County will not be served by California High-Speed Rail, persons in the Sacramento Valley that commute via I-80 who would normally drive alone or in vanpools/carpools, could switch to the California High-Speed Rail. The Institute's report suggests that as many as 6 percent of Bay Area commuters would shift from cars to high-speed rail.

#### *Other Recommendations*

We recommend that an alternative should be included in the DEIS that includes implementing transportation demand management techniques, commute trip reduction techniques, coupled with aggressive local smart growth/sustainable communities land use policies. We would be interested in knowing whether a similar capital investment in various alternative modes of transportation, modifications in land use patterns in the area, and commute trip reduction measures, could result in the same level of service outcomes as the build alternatives. A more extensive and convenient bus system, redevelopment of existing housing and commercial stock, transit-oriented/smart growth developments, paid parking at destinations, and incentives for ridesharing and telecommuting could decrease local traffic substantially. In



combination with ongoing projects such as the HOV lanes, a multi-strategy transportation demand management program may meet the project purpose and result in fewer adverse environmental impacts than the build alternatives.

Should you have any questions regarding this matter, please call Andrea Meier of our Regulatory Division at 415-503-6798. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter.

Sincerely,



Jane M. Hicks  
Chief, Regulatory Division

Copies Furnished:

US EPA, San Francisco, CA  
US FWS, Sacramento, CA  
US NMFS, Santa Rosa, CA  
CA DFG, Yountville, CA  
CA RWQCB, Oakland, CA  
STA, Suisun City, CA

**DEPARTMENT OF TRANSPORTATION**

P. O. BOX 23660  
OAKLAND, CA 94623-0660  
PHONE (510) 286-5231  
FAX (510) 286-5600  
TTY 711



*Flex your power!  
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13 August 2009

Ms. Carolyn Mulvihill, Environmental Review Office  
U. S. Environmental Protection Agency, Region 9  
75 Hawthorne Street, Mail Code CED-2  
San Francisco, CA 94105

Dear Ms. Mulvihill,

In July, you left me a VoiceMail message inquiring about how the proposed I-80/I-680/State Route 12 Interchange Project would affect existing mitigation sites within the project area.

There is one existing mitigation site in the project area for the I-80/I-680/State Route 12 Interchange—the Green Valley Corporate Wetlands. The initial phase of Alternative B would result in 0.45 acres of permanent impacts and an additional 0.08 acres of temporary impacts. (Please see enclosed exhibit.) Neither the initial phase of Alternative C or the ultimate Alternative C project would affect the mitigation site.

This mitigation site provides habitat for Valley Elderberry Longhorn Beetle and California Red Legged Frog. The number and location of elderberry shrubs that will be affected is currently being determined. Mitigation ratios will be developed in consultation with the U. S. Army Corps of Engineers, the U. S. Fish and Wildlife Service and other regulatory agencies.

If you have additional questions about this project, please contact me at 510.286.5231, or Howell Chan of my staff at 510.286.5623.

Sincerely,

A handwritten signature in blue ink that reads "Melanie Brent".

MELANIE BRENT  
District Office Chief  
Office of Environmental Analysis







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street  
San Francisco, CA 94105-3901

SEP 02 2009

Melanie Brent  
California Department of Transportation  
District 4  
P.O. Box 23660  
Oakland, California 94623-0660

Subject: Checkpoint on Range of Alternatives for Interstate 80/ Interstate 680/State Route 12  
Interchange Project, Solano County, CA

Dear Ms. Brent:

This letter responds to your May 20, 2009 letter requesting agreement on the Range of Alternatives to be included in the draft environmental impact statement (DEIS) for the Interstate 80 (I-80)/Interstate 680 (I-680)/State Route 12 (SR-12) Interchange Project. The request is in accordance with the 2006 National Environmental Policy Act/Clean Water Act Section 404 Integration Process Memorandum of Understanding (NEPA/404 MOU).

The California Department of Transportation (Caltrans) and the Solano Transportation Authority (STA) propose improvements to freeway-to-freeway connections between I-80, I-680, and SR-12 in Fairfield, Solano County. The U.S. Environmental Protection Agency (EPA) previously provided comments on the Purpose and Need Statement at a March 15, 2007 interagency checkpoint meeting, and subsequently agreed with an updated Purpose and Need Statement and with the Range of Alternatives presented at the meeting in a June 12, 2007 letter. At that time, the project alternatives consisted of Alternatives B and C, with SR-12 Options 1 or 2 possible with either alternative.

Subsequent to your May 2009 letter, EPA requested additional information on the project's potential impacts to the existing Green Valley Corporate Wetlands mitigation site. Your response on August 13, 2009 indicated that Alternative B would result in 0.45 acre of permanent impacts and 0.08 acre of temporary impacts to the site, but that Alternative C would not impact the site.


EPA understands that the identified alternatives have not changed substantively since the 2007 agreement point. Based on this, and the additional information we've received since then, we agree with the range of alternatives as Alternatives B and C, with Options 1 or 2. We also support the recommendations of the U.S. Army Corps of Engineers in their July 28, 2009 letter

to include transportation demand management and trip reduction methods in the project alternatives.

As a next step for this project and as described in the NEPA/404 MOU, EPA will review the DEIS. We are available to continue working with the Interagency Group to further refine the design of project alternatives to avoid and minimize impacts to resources. In addition, we would like to be involved in conceptual mitigation discussions.

Thank you for requesting our agreement on the Range of Alternatives. We look forward to continued participation in this project through the NEPA/404 MOU process. If you have any questions or comments, please contact Carolyn Mulvihill at (415) 947-3554 ([mulvihill.carolyn@epa.gov](mailto:mulvihill.carolyn@epa.gov)) or Jason Brush at 415-972-3483 ([brush.jason@epa.gov](mailto:brush.jason@epa.gov)), the lead reviewers for this project.

Sincerely,

*For* 

Kathleen M. Goforth, Manager  
Environmental Review Office (CED-2)

cc: Janet Adams, Solano Transportation Authority  
Andrea Meier, U.S. Army Corps of Engineers  
Jacqueline Pearson-Meyer, National Marine Fisheries Service  
Cay Goude, U.S. Fish and Wildlife Service  
Brian Wines, Regional Water Quality Control Board  
Greg Martinelli, California Department of Fish and Game





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE

Southwest Region

501 West Ocean Boulevard, Suite 4200

Long Beach, California 90802-4213

January 14, 2011

In response, refer to:  
2010/06180

James Richards, Deputy District Director  
Department of Transportation  
Caltrans District 4  
Office of Environmental Analysis  
111 Grand Avenue  
Oakland, California 94610

Dear Mr. Richards:

Thank you for your letter of December 8, 2010, requesting initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Effective July 1, 2007, the Federal Highway Administration assigned, and the California Department of Transportation (Caltrans) has assumed all responsibilities for consultation and approval on most highway projects in California. Therefore, Caltrans is now considered the Federal action agency for ESA consultations with NMFS for Federally funded projects. This letter also serves as consultation under the authority of, and in accordance with, the Essential Fish Habitat (EFH) provisions of the Magnuson Stevens Fishery Conservation and Management Act (MSA), and the provisions of the Fish and Wildlife Coordination Act of 1934 (FWCA), as amended. These consultations pertain to Caltrans' proposed Interstate-80/Interstate-680/State Route 12 Interchange Improvement Project in Solano County, California.

The Interstate-80/Interstate-680/State Route 12 (I-80/I-680/SR 12) Interchange Improvement Project covers several miles of roadway around the City of Fairfield in Solano County, California. The western boundary of the Project is the Red Top Road crossings of I-680, I-80, and SR 12; the eastern boundary of the Project is the Suisun Valley Road crossing on I-80 and the LedgeWood Creek road crossing on SR 12. Surface water in the action area includes Green Valley Creek and LedgeWood Creek. The purpose of the project is to improve the I-80/I-680/SR 12 interchange complex to meet traffic demands and alleviate cut-through traffic on local roads. The project consists of construction or realignment of the following interchanges: 1) I-80/I-680/SR 12 West; 2) I-680 and Red Top Road; 3) I-80 and Green Valley Road; 4) I-80/Red Top Road and Business Center Drive; and 5) and SR 12 West and Red Top Road. Construction will also involve widening of I-80 and a new lane on eastbound SR 12, which will require a new bridge and off-ramp over Green Valley Creek, and widening of the culvert over LedgeWood Creek. All proposed in-stream work will occur during the dry season (June 1 through October 15).





Green Valley Creek originates in Green Valley, northwest of Rockville Hills Regional Park, and flow south to Cordelia Slough which is a tributary of Grizzly Bay. At the existing I-80 and I-680/I-80 West Interchange overcrossing, Green Valley Creek flows in a concrete-lined, trapezoidal channel approximately 670 feet long and 70 feet wide. The proposed action will remove the existing I-80 West bridge and replace it with a single span structure measuring approximately 103 feet long and 133 feet wide. Additionally, a single span structure to carry the Green Valley Road off-ramp over the creek will replace the existing I-680/I-80 West interchange.

In-stream construction at Green Valley Creek is proposed to occur between June 1<sup>st</sup> and October 15<sup>th</sup>, over approximately four construction seasons. Construction at Green Valley Creek will occur within a 10-20 year time frame. The first phase will involve construction of the outside (northernmost) westbound lanes on I-80 while maintaining traffic flow on the existing structure. Demolition of the existing I-80 West bridge, and completion of the new I-80 West bridge and the new off-ramp structure will follow.

Piles for the new free-spanning structures will be located at the top of the creek bank and are anticipated to be 12-inch square piles driven to a depth of approximately 70 feet. Approximately 40 piles per abutment will be installed for the westbound I-80 bridge, and approximately 24 piles per abutment will be installed for the new off-ramp structure. Vibratory hammers will be used for pile driving to the maximum practicable extent. Pile driving will only occur during low precipitation periods (June 1 to October 15) and any work occurring before June 1 or after October 15 will be restricted to road or bridge surface only, with water quality control measures in place.

Ledgewood Creek originates in the Vaca Mountains, north of the Solano/Napa County line, and flows south to Paytonia Slough which is a tributary of Grizzly Bay. In the vicinity of the existing SR 12 overcrossing, Ledgewood Creek is confined to a levee-lined trapezoidal channel. Beneath the five-span bridge at SR 12, Ledgewood Creek is conveyed through concrete-lined box culverts. Within the action area, riparian and riverine cover is limited to areas downstream of these culverts. The culverts at SR 12 and Ledgewood Creek is proposed to be extended 15 feet to the south (downstream) to accommodate an additional lane on SR 12; this would permanently impact 15 linear feet of the existing earthen channel. Construction associated with the culvert is expected to last only one season from June 1 to October 15.

Dewatering of both Ledgewood Creek and Green Valley Creek will involve construction of the following in-channel features: 1) temporary cofferdams (made of gravel and fabric) constructed 20-50 feet beyond the limit of bridge/culvert widening; and a pipe diversion to facilitate dewatering of the channel and bypass creek flow; 2) cofferdams constructed utilizing the same methods to facilitate excavation of existing bridge/culvert footings; and 3) falsework placed within the banks and channel to support construction of the cast-in-place concrete box girder structures of the new bridges/culverts. No construction related material (including dewatering and bypass structures) will remain in the channel between October 15 and June 1. When construction is completed, falsework will be removed and any disturbed portions of the creek bed and bank temporarily affected during construction will be restored to pre-project conditions. Additionally, the channel under the new bridges at Green Valley Creek will be restored to an



earthen channel; and a concrete fish passage structure involving a low flow channel and possibly baffles will be constructed in the culvert at SR 12 and Ledgewood Creek.

Standard best management practices (BMPs) for construction site and sediment and stormwater runoff control will be utilized on this project. Biofiltration swales and biostrips will be used when possible to control runoff. Vegetation will be trimmed rather than removed when possible. Temporarily disturbed riparian areas will be replanted with the native species prior to October 15 to minimize erosion and creek sedimentation, and revegetation will be monitored annually for 3 years.

### **Endangered Species Act**

In its December 8, 2010, letter Caltrans asked for concurrence with a finding that the project is not likely to adversely affect Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*). Reaches of Green Valley Creek and Ledgewood Creek within the project area are not designated critical habitat for CCC steelhead. Available information indicates the following DPS may occur in the project area:

#### **Central California Coast steelhead Distinct Population Segment (*O. mykiss*) DPS Threatened (January 5, 2006; 71 FR 834).**

The life history of steelhead is summarized in Busby *et al.* (1996). Steelhead typically immigrate to tributaries of San Francisco Bay between November and April, peaking in January and February (Fukushima and Lesh 1998). Adult CCC steelhead are generally not present in streams between May and October; warm summer water temperature and poor habitat quality within the project area further reduce the likelihood of adult steelhead presence during summer months. Juvenile steelhead emigrate episodically from natal streams during fall, winter, and spring high flows. Emigrating CCC steelhead use Green Valley Creek and portions of the San Francisco Bay for rearing and as a migration corridor to the ocean. In summer months, reaches of Green Valley Creek and Ledgewood Creek within the action area are unsuitable for salmonid rearing due to poor water and habitat quality. Although data regarding the emigration timing of steelhead smolts from Green Valley Creek and Ledgewood Creek is lacking, steelhead from other streams draining to San Francisco Bay typically emigrate from March through June (Fukushima and Lesh 1998). NMFS assumes that steelhead from Green Valley Creek and Ledgewood Creek emigrate at the same time and smolting steelhead should be absent during the in-channel construction window of June 1 through October 15.

*O. mykiss* have been collected in Green Valley Creek from the 1950s to the present, and unpublished data indicates *O. mykiss* were collected 1 mile upstream of I-80 in January 1997 (Leidy *et al.* 2005). Therefore, it is likely that steelhead spawning and rearing occur above the I-80 crossing of Green Valley Creek. Beneath I-80 and the I-680/I-80 West interchange Green Valley Creek passes through a 670 foot long, concrete-lined trapezoidal channel and primarily provides a migration corridor for salmonids at this location. This crossing contains an engineered low-flow channel and concrete weirs to enhance fish passage, but lacks significant riparian canopy and natural instream cover due to the concrete channel invert.



Caltrans proposes to restore approximately 300 feet of Green Valley Creek to natural earthen channel and in the process enhance habitat at the site. Proposed actions will not inhibit fish passage at the site, and could provide additional rearing habitat for juvenile salmonids. Salmonids are not likely to be present during summer in-channel construction and pile driving work windows. Construction activities that are proposed to occur when migratory steelhead are likely to be present will be restricted to road or bridge surfaces only, with water quality control measures in place. Therefore, CCC steelhead are not likely to be adversely affected by the proposed actions at Green Valley Creek.

In the vicinity of the SR 12 crossing, levees line both banks of Ledge wood Creek and the channel has a trapezoidal cross section. SR 12 crosses Ledge wood Creek over a five-span bridge. At low flows Ledge wood Creek passes through the second culvert from the east bank, which forms a V-shaped channel to maximize water depths at low flows. No observations of steelhead have been reported in Ledge wood Creek. The Ledge wood Creek drainage, however, is adjacent to the Suisun Creek Watershed which is known to support steelhead populations. Furthermore, Chinook salmon have been observed spawning in Ledge wood Creek above the project site, indicating that Ledge wood Creek supports migratory habitat for anadromous salmonids (NMFS 2011).

Proposed activities at Ledge wood Creek involve widening the SR 12 crossing by 15 linear feet to the south. This will permanently impact 15 linear feet of the existing earthen channel by converting it to a concrete invert slab. This action will exacerbate the existing shallow water depth issues at low flows; and concrete low-flow walls and potentially baffles will be constructed to enhance low-flow fish passage of the culvert. Ledge wood Creek is not designated critical habitat for CCC steelhead, and there is no confirmed documentation of *O. mykiss* within the drainage. The proximity of Ledge wood Creek to the Suisun Creek watershed, however, indicates migratory steelhead could be present during periods of higher flows. All construction activities associated with the culvert will occur over one dry season, from June 1 to October 15. Therefore, the presence of CCC steelhead is unlikely during proposed construction activities, and CCC steelhead are not likely to be adversely affected by the proposed actions at Ledge wood Creek. Proposed passage improvements at Ledge wood Creek will address the addition of 15 linear feet of hardened creek bottom, and potentially make higher quality habitat above the culvert more accessible to CCC steelhead.

Based on the best available information, NMFS concurs with Caltran's determination that threatened CCC steelhead are not likely to be adversely affected by the I-80/I-680/SR 12 Interchange Improvement Project. This concludes informal consultation in accordance with 50 CFR 402.13(a) for the proposed I-80/I-680/SR 12 Interchange Improvement Project in Solano County, California. However, further consultation may be required if: (1) new information becomes available indicating that listed species or critical habitat may be affected by the project in a manner or to an extent not previously considered; (2) current project plans change in a manner that causes an effect to listed species or critical habitat in a manner not previously considered; or (3) a new species is listed or critical habitat designated that may be affected by the action.



### **Magnuson-Stevens Fishery Conservation and Management Act**

The project area is located within an area identified as EFH for Central Valley fall/late fall-run Chinook salmon, managed with the Pacific Coast Salmon Fishery Management Plan under the MSA. As discussed in the above ESA section, no in-water construction will take place when Chinook salmon are likely to be present. However, adverse effects to EFH could occur from increased sedimentation and turbidity following construction activities. While these impacts are considered minor and temporary, NMFS has made the determination that the proposed action would adversely affect EFH for this species. However, the proposed action contains adequate measures to avoid, minimize, mitigate, or otherwise offset any adverse effects to EFH. Therefore, NMFS has no additional EFH Conservation Recommendations to provide.

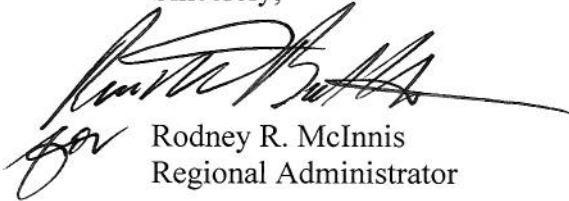
This concludes EFH consultation for Caltrans' proposed I-80/I-680/SR 12 Interchange Improvement Project, Solano County, California. Pursuant to 50 CFR 600.920(l) of the EFH regulations, Caltrans must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH Conservation Recommendations.

### **Fish and Wildlife Coordination Act**

The purpose of the FWCA is to ensure that wildlife conservation receives equal consideration, and is coordinated with other aspects of water resources development [16 U.S.C. 661]. The FWCA establishes a consultation requirement for Federal departments and agencies that undertake any action that proposes to modify any stream or other body of water for any purpose, including navigation and drainage [16 U.S.C. 662(a)]. Consistent with this consultation requirement, NMFS provides recommendations and comments to Federal action agencies for the purpose of conserving fish and wildlife resources. With implementation of the previously-referenced EFH conservation recommendations, NMFS has no further comments to provide.

Please contact Mr. Joseph Heublein at (707) 575-1251, or via e-mail at [joe.heublein@noaa.gov](mailto:joe.heublein@noaa.gov) should you have any questions.

Sincerely,



Rodney R. McInnis  
Regional Administrator

cc: Chris Yates, NMFS, Long Beach  
Bob Hoffman, NMFS, Long Beach  
Bryant Chesney, NMFS, Long Beach  
Ahmad Hashemi, Caltrans District 4  
Copy to File ARN: 151422-SWR-2010-SR00524

**Literature Cited**

- Busby, P.J., T.C. Wainwright, G.J. Bryant, L. Lierheimer, R.S. Waples, F.W. Waknitz and I.V. Lagomarsino. 1996. Status Review of West Coast Steelhead from Washington, Idaho, Oregon, and California. United States Department of Commerce, National Oceanic and Atmospheric Administration Technical Memorandum NMFS-NWFSC-27. 261 pages.
- Fukushima L., and E.W. Lesh. 1998. Adult and juvenile anadromous salmonid migration timing in California streams. California Department of Fish and Game 84(3):133-145.
- Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical Distribution and Current Status of Steelhead/Rainbow Trout (*Oncorhynchus mykiss*) in Streams of the San Francisco Estuary, California. Oakland, CA: Center of Ecosystem Management and Restoration.
- National Marine Fisheries Service (NMFS). Central Valley Chinook Salmon, Current Stream Habitat Distribution Table. <http://swr.nmfs.noaa.gov/hcd/dist2.htm>. Accessed January, 2011.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

March 8, 2011

Howell Chan  
California Department of Transportation  
District 4  
P.O. Box 23660  
Oakland, California 94623-0660

Subject: Preliminary Least Environmentally Damaging Practicable Alternative for the  
Interstate 80/Interstate 680/State Route 12 Interchange Project, Solano County,  
California

Dear Mr. Chan:

The California Department of Transportation (Caltrans) has asked the Environmental Protection Agency (EPA) whether we have enough information to agree upon a preliminary least environmentally damaging practicable alternative (LEDPA) for the Interstate 80/Interstate 680/State Route 12 Interchange Project. Caltrans' request was made pursuant to the process outlined in the *National Environmental Policy Act/Clean Water Act (CWA) Section 404 Integration Memorandum of Understanding* (NEPA/404 MOU) of April 2006. We appreciate the interagency coordination efforts by Caltrans to identify the preliminary LEDPA.

Based on meetings with Caltrans and other resources agencies (including a Checkpoint 3 meeting on November 29, 2010 and a follow-up meeting on February 9, 2011), EPA recommends that Caltrans/Solano Transportation Authority (STA) request concurrence/agreement on Phase 1 of the proposed project, rather than the entire project. We believe that given the uncertainty, both about environmental conditions and about design options for Phase 2 construction, it would be most prudent to identify the preliminary LEDPA for Phase 1 of the project, with an understanding that additional environmental analysis and design work will be completed for the remainder of the project at a future date. Based on information provided by Caltrans/STA, we acknowledge that Phase 1 has independent utility since: 1) its function is not dependent on Phase 2 implementation, and 2) Phase 1 construction would not restrict consideration or refinement of alternatives for the future phase of the project. Also, since the NEPA Record of Decision, Clean Water Act Section 404 permit application, and U.S. Fish and Wildlife Service Biological Opinion will cover Phase 1 of the project, it is consistent that the preliminary LEDPA request be for Phase 1.



In accordance with this recommendation, we request that Caltrans/STA include a discussion of avoidance and minimization measures that will be incorporated in design and construction of Phase 1. As Phase 1 of Alternative C would impact a higher acreage of waters than Phase 1 of Alternative B (even if that difference in impacts is temporal in nature, with regard to the potential impacts of the overall alternatives), the resource agencies will need evidence that potential impacts of Alternative C, Phase 1, have been minimized to the maximum extent practicable, and that the benefits of Alternative C, Phase 1 justify the greater impacts, in order to justify identification of this alternative as the LEDPA.

We appreciate and support the analysis of the entire project in the environmental document so that the potential impacts of future phases can be thoroughly considered in the decisionmaking process.

If you have any questions about the recommendations we've provided, please contact Carolyn Mulvihill of my staff at (415) 947-3554 or mulvihill.carolyn@epa.gov, or Melissa Sciannia of EPA's Wetlands Regulatory Office at 415-972-3821 or scianni.melissa@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Connell Dunning", with a stylized flourish at the end.

Connell Dunning, Transportation Team Supervisor  
Environmental Review Office

cc: Andrea Meier, Army Corps of Engineers  
Brendan Thompson, Regional Water Quality Control Board  
John Cleckler, U.S. Fish and Wildlife Service  
Melissa Escaron, California Department of Fish and Game



DEPARTMENT OF THE ARMY  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

APR 05 2011

REPLY TO  
ATTENTION OF

Regulatory Division

SUBJECT: File Number SPN-2007-400401 S

Mr. Howell Chan  
Office of Environmental Review  
California Department of Transportation, District 4  
P.O. Box 23660  
Oakland, California 94623-0660

Dear Mr. Chan:

We are writing in response to your request for a preliminary determination of a least environmentally damaging practicable alternative (LEDPA) for the Interstate 80/Interstate 680/State Route 12 Interchange Project in Solano County, California. Your office asked for concurrence on the applicant's preliminary LEDPA, Alternative C, on December 31, 2010. We stated in several meetings that we would wait for the other resource agencies to flush out their concerns and if necessary, we would ask for additional information prior to making an LEDPA concurrence at checkpoint 3 for this project. The two agencies that have had the most disagreement on the preliminary LEDPA and concerns about project impacts, the U.S. Environmental Protection Agency and the San Francisco Bay Regional Water Quality Control Board, have made it clear that they will not concur or agree on a preliminary LEDPA at this point.

The Corps understands that the purpose of determining a preliminary LEDPA in the NEPA/404 Integration Process is to move forward with the environmental document. The NEPA/404 MOU ("National Environmental Policy Act and Clean Water Act, Section 404 Integration Process for Federal Aid Surface Transportation Projects in California", dated November 2005), states "[the NEPA/404 integration] process does not include all [the] environmental review and permitting requirements" and that "regulatory and resource agency participation in the process does not imply endorsement of all aspects of a transportation plan or project". The request to make a preliminary LEDPA determination in our opinion is equivalent to requesting a good-faith, early review of project alternatives. For the Corps, a preliminary LEDPA determination is not binding since projects may be refined further to avoid and minimize impacts to aquatic resource prior to or during the Corps permit evaluation process.

As such, the Corps is *considering* concurrence that the general footprint of Alternative C, Phase 1, is the preliminary LEDPA for a fundable Phase 1 of the Interstate 80/Interstate 680/State Route 12 Interchange Project. However, your office has requested a preliminary

LEDPA concurrence which also requires a concurrence on a conceptual mitigation plan (CMP) at the same time (see section III.12.c). We agree that you are headed in the right direction with the compensatory mitigation approach discussed in the December 6, 2011, interagency meeting, but additional information is required to round out a CMP. At this point, we are concerned the mitigation approach may not adequately replace the functions and values of the aquatic resources that would be lost.

A conceptual mitigation plan sufficient to concur on a preliminary LEDPA should include your objectives; site selection criteria; site protection instruments to be used; a brief description of the site; aquatic resources are to be created, restored, enhanced, or preserved on the site; a work plan; a monitoring plan; performance standards and suitable reference sites. We also recommend providing aerial photos of proposed sites that are used to illustrate where mitigation would occur. Preparation of a conceptual mitigation plan can be done concurrently with providing additional information to the San Francisco Bay Regional Water Quality Control Board and the U.S. Environmental Protection Agency requested in their March 8, 2011 letters. We would encourage you to focus your attention on areas within the Suisun Marsh Management area, east of Interstate 680 and south of State Route 12. We would also like to respond to your suggestion of the use of mitigation bank credits as compensatory mitigation for seasonal wetlands. While the project is within the Elsie-Gridley Mitigation Bank service area, due to the scale of the impacts (Alternative C proposed 16.83 acres of permanent impacts to waters of the U.S.), this district may not authorize the purchase of credits from that bank to compensate for aquatic resources impacted.

One of the requirements in the March 8 letter from the SF Bay RWQCB is the preparation of a Clean Water Act Section 404(b)(1) alternatives analysis. While this information may be useful in determining whether alternatives have avoided and minimized impacts to waters of the U.S. to the maximum extent practicable (a major concern of the RWQCB and U.S. EPA), that request for alternatives information is generally made by the U.S. EPA or the Corps of Engineers who use that information in their alternatives analysis process prior to issuing a permit. In order to prevent unnecessary duplication, I would recommend involving the Corps and EPA in defining the information that should be provided and the framing of the alternatives analysis so that the analysis can be used for all three agencies. The level of detail required in a CWA Section 404(b)(1) alternatives analysis is not required in making a preliminary LEDPA determination, however, the other agencies have requested additional information on avoidance and minimization and we would encourage you to provide that information prior to requesting conclusion of checkpoint #3.



Should you have any questions regarding this matter, please call Andrea Meier at (415) 503-6798 or Cameron Johnson at (415) 503-6773. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter.

Sincerely,



Jane M. Hicks  
Chief, Regulatory Division

Copies Furnished:

US EPA, San Francisco, CA  
US FWS, Sacramento, CA  
US NMFS, Santa Rosa, CA  
CA DFG, Yountville, CA  
CA RWQCB, Oakland, CA



**DEPARTMENT OF TRANSPORTATION**

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23 January 2012

Paula Gill, U. S. Army Corps of Engineers  
Carolyn Mulvihill, U. S. Environmental Protection Agency  
Melissa Scianni, U. S. Environmental Protection Agency  
John Cleckler, U. S. Fish and Wildlife Service  
Chris Nagano, U. S. Fish and Wildlife Service  
Joe Heublein, NOAA's National Marine Fisheries Service  
Brendan Thompson, San Francisco Bay Regional Water Quality Control Board  
Dale Bowyer, San Francisco Bay Regional Water Quality Control Board  
Brenda Blinn, California Department of Fish and Game

Due to the complexity of the issue surrounding the Conceptual Mitigation Plan (CMP) for the I-80/I-680/State Route 12 Interchange Project, we request for this project, that Checkpoint #3 under the NEPA/Section 404 Memorandum of Understanding (2006 MOU) be split into two separate actions: concurrence on the Least Environmentally Damaging Practicable Alternative (LEDPA); and concurrence on the CMP. This will enable the project to move forward with completion of the Final Environmental Impact Report/Environmental Impact Statement (FEIR/EIS) and the Record of Decision (ROD).

While the FEIR/EIS and ROD are moving forward, we will commit to working with all the agencies to obtain concurrence/agreement on the CMP. If the agencies are unable to concur/agree on the CMP, the dispute resolution procedures outlined in the 2006 MOU will be invoked. A Section 404 permit application will be submitted to the USACE only after concurrence/agreement on the CMP. Any location considered for mitigation will only be acquired after studies and after approvals of the location by the signatory agencies.

Please let us know when we can expect your written concurrence/agreement on the LEDPA.

If you have any questions, please contact me at 510.286.5231, or [melanie\\_brent@dot.ca.gov](mailto:melanie_brent@dot.ca.gov), or Howell Chan of my staff at 510.286.5623, or [howell\\_chan@dot.ca.gov](mailto:howell_chan@dot.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Melanie Brent".

MELANIE BRENT  
District Office Chief







<Ryan\_Olah@fws.gov>

03/07/2012 08:07 AM

To Howell Chan <howell\_chan@dot.ca.gov>

cc <john\_cleckler@fws.gov>

bcc

Subject Re: I-80/I-680/SR 12 Interchange Project in Solano County:  
Splitting Checkpoint 3 in the NEPA/404 Integration Process

History:

➡ This message has been forwarded.

The Service is fine with splitting Checkpoint 3. Thanks.

Ryan

Ryan Olah  
Coast Bay/Forest Foothill Division Chief  
U.S. Fish and Wildlife Service  
Sacramento Fish and Wildlife Office  
2800 Cottage Way  
Sacramento, CA 95825  
(916) 414-6623

Howell Chan  
<howell\_chan@dot.  
ca.gov>

02/28/2012 08:55  
AM

<ryan\_olah@fws.gov>

<john\_cleckler@fws.gov>

To

cc

Subject

I-80/I-680/SR 12 Interchange  
Project in Solano County:  
Splitting Checkpoint 3 in the  
NEPA/404 Integration Process

Hi Ryan,

Because there is no consensus yet on the Conceptual Mitigation Plan for the I-80/I-680/SR 12 Interchange Project, the USEPA suggested splitting Checkpoint 3 in the NEPA/Section 404 Integration Process and proceeding now with a decision on the Least Environmentally Damaging Practicable Alternative (LEDPA). This would allow the Final EIR/EIS to proceed to approval while providing time to come up with more locations for the Conceptual Mitigation Plan, which will be completed prior to the submittal of permit applications. The USACE is willing to use this approach. The NOAA's NMFS doesn't have any problems with it either. If you/USFWS also agree, then the USEPA and USACE will send Caltrans letters that they have decided to split Checkpoint 3 and provide a go-ahead to proceed with Alternative C, Phase 1 as the LEDPA.

If you have any questions about this matter, please contact me, or my boss (Melanie Brent, 510.286.5231, melanie\_brent@dot.ca.gov), or Zachary Gifford (510.286.5610, zachary\_gifford@dot.ca.gov) who works for me.

Thank you for your assistance.

Howell Chan  
California Department of Transportation  
District 4, Office of Environmental Analysis  
510.286.5623





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

March 15, 2012

Melanie Brent  
California Department of Transportation  
District 4  
P.O. Box 23660  
Oakland, California 94623-0660

Subject: Preliminary Least Environmentally Damaging Practicable Alternative for the  
Interstate 80/Interstate 680/State Route 12 Interchange Project, Solano County,  
California

Dear Ms. Brent:

The Environmental Protection Agency (EPA) has reviewed the California Department of Transportation's (Caltrans') January 23, 2012 letter requesting that Checkpoint #3 under the *National Environmental Policy Act/Clean Water Act (CWA) Section 404 Integration Memorandum of Understanding* (NEPA/404 MOU) of April 2006 be split into two separate checkpoints: (1) agreement on the preliminary least environmentally damaging practicable alternative (LEDPA) and (2) agreement on the Conceptual Mitigation Plan (CMP). EPA agrees to this amendment of the NEPA/404 MOU process for this project, and agrees that Alternative C Phase 1 is the preliminary LEDPA. Our agreement is based on information received from Caltrans, up to and including the package sent on December 19, 2011.

While Alternative C Phase 1 would impact a higher acreage of waters than Alternative B Phase 1, we recognize Caltrans' assertion that due to engineering and operational issues, Alternative B Phase 1 is not practicable. We also recognize that Caltrans has identified avoidance and minimization measures that can lower overall impacts, as noted in the information sent on December 19, 2011.

As we proposed in my January 17, 2012 email to you (attached), we agree to this amendment to the NEPA/404 MOU process with the following caveats:

- The CMP checkpoint will be completed prior to Caltrans' submission of a Clean Water Act Section 404 permit application to the Army Corps of Engineers;
- If the NEPA/404 signatory resource agencies are unable to concur/agree on the CMP, the dispute resolution procedures outlined in the NEPA/404 MOU will be applicable.

If you have any questions about the recommendations we've provided, please contact Carolyn Mulvihill of my staff at (415) 947-3554 or [mulvihill.carolyn@epa.gov](mailto:mulvihill.carolyn@epa.gov), or Melissa Scianni of EPA's Wetlands Office at 415-972-3821 or [scianni.melissa@epa.gov](mailto:scianni.melissa@epa.gov). If you prepare any additional materials in response to requests from other resource agencies, please provide a copy of those materials to EPA.

Sincerely,

A handwritten signature in cursive script that reads "Carolyn Mulvihill for".

Connell Dunning, Transportation Team Supervisor  
Environmental Review Office

Attachment: January 17, 2012 email from Connell Dunning to Melanie Brent on Proposed strategy for moving forward on LEDPA agreement/concurrence on I-80/680

cc: Paula Gill, Army Corps of Engineers  
Brendan Thompson, Regional Water Quality Control Board  
John Cleckler, U.S. Fish and Wildlife Service  
Melissa Escaron, California Department of Fish and Game



**Proposed strategy for moving forward on LEDPA agreement /concurrence on I80/680**

**Connell Dunning** to: melanie\_brent, howell\_chan

01/17/2012 04:42 PM

Cc: Paula.C.Gill, Melissa Scianni, bthompson, Jason Brush, dale\_jones, Carolyn Mulvihill

Hi Melanie,

I'm following up on my call to you this morning in regard to the LEDPA/CMP checkpoint for the I-80/680/SR12. Based on conversations that we've had with the Corps and the Regional Board, we would like to propose that for this project, Checkpoint #3 in the NEPA/404 MOU, which includes concurrence/agreement on both the preliminary LEDPA and the CMP, be split into two separate checkpoints.

This is based on the fact that at this time, EPA, the Corps, and the Regional Board are able to concur/agree on the preliminary LEDPA, but are not able to concur/agree on the CMP. Splitting the checkpoint would allow Caltrans to continue the NEPA/404 process once the formal concurrence/agreement on the LEDPA has been completed. Our proposal is that the CMP checkpoint be completed prior to submission of a 404 CWA permit application to the Corps.

Changing the requirements of Checkpoint #3 is allowed under the Modification Procedures in the MOU, but requires approval by all signatory agencies. If Caltrans agrees with this proposal, we recommend the following:

- 1) Caltrans should request in writing that Checkpoint #3 be split. The letter should be submitted to all signatory agencies for their approval. (One letter written to all parties would be sufficient, with a copy to the Regional Board per their involvement.)
- 2) The request letter must include Caltrans' commitments 1) to submit a CMP prior to submission of a 404 CWA permit application to the Corps and 2) to present any proposed mitigation site to the agencies prior to completing any studies or purchasing any proposed site.
- 3) The letter should also acknowledge CT understanding that no 404 CWA permit application will be processed until the agencies concur/agree with the CMP. If the resource agencies are unable to concur/agree on the CMP the dispute resolution procedures outlined in the 2006 MOU will be applicable.

Please let me know if you have any questions about this proposed course of action.

Thanks,  
Connell

---

Connell Dunning, U.S. EPA Region IX  
Environmental Review Office/Transportation Lead  
75 Hawthorne Street, CED-2, San Francisco, CA 94105  
415-947-4161  
dunning.connell@epa.gov

Learn more about EPA's role in Sustainability:  
<http://www.epa.gov/Sustainability/>





**DEPARTMENT OF TRANSPORTATION**

P.O. BOX 23660, MS 8-B  
OAKLAND, CA 94623-0660  
PHONE (510) 286-5231  
FAX (510) 286-5600  
TTY 711  
www.dot.ca.gov



*Flex your power!  
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14 March 2012

Reference: USACE File No. 400401S

Paula Gill, U. S. Army Corps of Engineers  
Carolyn Mulvihill, U. S. Environmental Protection Agency  
Melissa Scianni, U. S. Environmental Protection Agency  
John Cleckler, U. S. Fish and Wildlife Service  
Chris Nagano, U. S. Fish and Wildlife Service  
Joe Heublein, NOAA's National Marine Fisheries Service  
Brendan Thompson, San Francisco Bay Regional Water Quality Control Board  
Dale Bowyer, San Francisco Bay Regional Water Quality Control Board  
Brenda Blinn, California Department of Fish and Game

Subject: Consolidating Checkpoint #3 Materials into a Stand Alone Document

Please find accompanying this letter, a compilation of the materials and supplements that have been submitted in the process to achieve LEDPA concurrence at Checkpoint #3 for the I-80/I-680/SR 12 Interchange Project. The request for this compilation was from the U. S. Army Corps of Engineers in their letter dated 30 January 2012.

If you have any questions, please contact me at 510.286.5231, or [melanie\\_brent@dot.ca.gov](mailto:melanie_brent@dot.ca.gov), or Howell Chan of my staff at 510.286.5623, or [howell\\_chan@dot.ca.gov](mailto:howell_chan@dot.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Melanie Brent".

MELANIE BRENT  
District Office Chief

enclosures







REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
1455 MARKET STREET  
SAN FRANCISCO, CALIFORNIA 94103-1398

APR 10 2012

Regulatory Division

SUBJECT: File No. 400401S

Ms. Melanie Brent, District Office Chief  
California Department of Transportation (Caltrans)  
P.O. Box 23660, MS8-B  
Oakland, California 94623

Dear Ms. Brent:

This letter serves to respond to information provided on your behalf on March 22, 2012. You have requested that Checkpoint #3 under the NEPA/Section 404 Memorandum of Understanding (2006 MOU) be split into two separate actions: 1) concurrence on the preliminary Least Environmentally Damaging Practicable Alternative (LEDPA) and 2) concurrence on the Conceptual Mitigation Plan (CMP) for the I-80/I-680/State Route 12 Interchange project.

Based on the information provided, USACE agrees that Alternative C, Phase 1 is the preliminary LEDPA. As an application for a Department of the Army permit has not been submitted at this time, further analysis may be required. We also concur with the modification of the 2006 MOU for this project which will split checkpoint #3 into two steps. Prior to any processing of a CWA Section 404 permit application for this project, USACE must also concur with a CMP. If the NEPA/404 signatory resource agencies are unable to concur/agree on the CMP then the dispute resolution procedures outlined in the 2006 MOU will be followed. Included in the provided information is document titled "*Waters of the U.S. Avoidance and Minimization Assessment*" dated December 14, 2011. We request that these avoidance and minimization measures be fully utilized and incorporated into subsequent 404 CWA applications for this project.

Should you have any questions regarding this matter, please call Paula Gill of our Regulatory Division at 415-503-6776. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter.

Sincerely,

Torrey A. DiCiro, P.E., PMP  
Lieutenant Colonel, U.S. Army  
Commanding

Enclosures

Copies Furnished:

US EPA, San Francisco, CA  
US FWS, Sacramento, CA  
US NMFS, Santa Rosa, CA  
CA DFG, Yountville, CA  
CA RWQCB, Oakland, CA

# Federal Clean Air Act Conformity Requirement







U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**California Division**

April 13, 2011

650 Capitol Mall, Suite 4-100  
Sacramento, CA 95814  
(916) 498-5001

In Reply Refer To:  
HDA-CA  
04-0A5300

Bijan Sartipi, District Director  
California Department of Transportation  
111 Grand Avenue  
P.O. Box 23360  
Oakland, CA 94612

Attention: Allen Baradar, Office Chief, Chief of Environmental Engineering

Dear Mr. Baradar:

**SUBJECT:** FHWA Project Level Conformity Determination for the I-80/ I-680/ SR-12  
Interchange Project, Solano County

On March 8, 2011, the California Department of Transportation (Caltrans) submitted to the Federal Highway Administration (FHWA) a request for a project level conformity determination for the I-80/ I-680/ SR-12 Interchange Project in Solano County. The project is in an area that is designated Nonattainment for Ozone and PM<sub>2.5</sub> and Maintenance for Carbon Monoxide (CO).

The project level conformity analysis submitted by Caltrans indicates that the transportation conformity requirements of 40 C.F.R. Part 93 have been met. The project is included in the Metropolitan Transportation Commission's (MTC) currently conforming *Transportation 2035 Plan (RTP)* and the *2011 Regional Transportation Improvement Program (RTIP)*. The current conformity determinations for the RTP and RTIP were approved by FHWA and the Federal Transit Administration (FTA) on December 14, 2010. The design concept and scope of the preferred alternative have not changed significantly from those assumed in the regional emissions analysis.

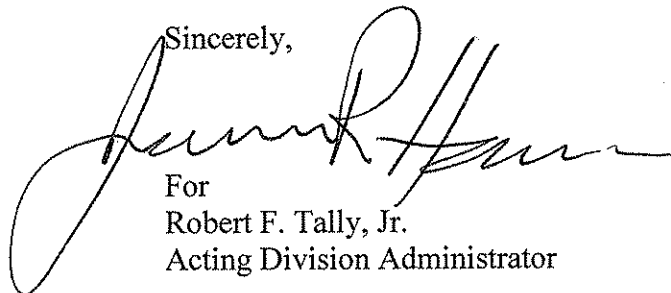
As required by 40 C.F.R. 93.116 and 93.123, the localized CO and PM<sub>2.5</sub> analyses are included in the documentation. The CO hotspot analysis was conducted using the *Transportation Project-Level Carbon Monoxide Protocol*. The analyses demonstrate that the project will not create any new violation of the standards or increase the severity or number of existing violations.

Based on the information provided, FHWA finds that the Conformity Determination for the I-80/ I-680/ SR-12 Interchange Project in Solano County conforms to the State Implementation Plan (SIP) in accordance with 40 C.F.R. Part 93.



If you have any questions pertaining to this conformity finding, please contact Stew Sonnenberg, FHWA Air Quality Specialist, at (916) 498-5889 or by email at [Stew.Sonnenberg@dot.gov](mailto:Stew.Sonnenberg@dot.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Robert F. Tally, Jr.", written in a cursive style.

For  
Robert F. Tally, Jr.  
Acting Division Administrator



cc: (email)

Mike Brady, Caltrans HQ

Glenn Kinoshita, D-4

Jermaine Hannon, FHWA

SSonnenberg/km



## Appendix I    Property Impacts

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Alternative B and Alternative B-1 Existing Development

| Map                               | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building(s) to be displaced | # of Existing Residential Building(s) to be displaced | Name of Business           | Use of Existing Building | Property Type                 | Displacement Address       | Zipcode        | Owner                          | Owner Address                               | Owner Zipcode                                     | Full or Partial Take of Parcel | Notes   |  |
|-----------------------------------|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|----------------------------|--------------------------|-------------------------------|----------------------------|----------------|--------------------------------|---|---|--------------------------------|---------|--|
| Alternative B - Map 1 (ROW Takes) | ^0027260120   |                            | 139143   | 3.19  | 21.62                         | 941,767                             |  |   |                            |                          | Agricultural Land             |                            |                | Meredith Carter                | 4950 Gordon Valley Road                     | 94534   | Partial                        |         |  |
|                                   | ^0027272070   |                            | 10584  | 0.24  |                               |                                     |  |   |                            | vacant land              | Government                    |                            |                | California State               | PO Box 1019 Sacramento                      | 95805   | Partial                        |         |  |
|                                   | ^0027272130   |                            | 48381  | 1.11  |                               |                                     |  |   |                            | vacant land              | Government                    |                            |                | California State               | PO Box 1019 Sacramento                      | 95805   | Full                           |         |  |
|                                   | ^0027272140   |                            | 439492   | 10.09   | 11.7                          | 509,652                             |  |   |                            |                          | Agricultural Land             |                            |                | Michelle Valine                | 4000 Russell Road, Suisun City              | 94585   | Full                           |         |  |
|                                   | ^0027272120   |                            | 16749  | 0.38  |                               |                                     |  |   |                            | vacant land              | Agricultural Land             |                            |                | California State               | PO Box 1019 Sacramento                      | 95805   | Full                           |         |  |
|                                   | ^0027272180   |                            | 272045   | 6.25  | 91.41                         | 3,981,820                           |  |   |                            |                          | Agricultural Land             | 2621 Cordelia Road         |                | Edgar Walter Thompson          | 6508 Horsemans Canyon Road, Walnut Creek    | 94595   | Partial                        |         |  |
|                                   | ^0027272160   |                            | 22619  | 0.52  |                               |                                     |  |   |                            |                          | Improved Multiple Residential | 3999 Hale Ranch Road       |                | William R Hale                 | 4011 Hale Ranch Road                        | 94534   | Partial                        |         |  |
|                                   | ^0027252080   |                            | 446374   | 10.25   | 16                            | 696,960                             |  |   |                            | vacant land              | Government                    | 10 Hale Ranch Road         |                | Anheuser Busch Inc.            | 721 Pestalozzi Street, St. Louis, MO        | 68118   | Partial                        |         |  |
|                                   | ^0027252090   |                            | 4849   | 0.11  |                               |                                     |  |   |                            |                          | Taxable Below Min. Value      |                            |                | Anheuser Busch Inc.            | 721 Pestalozzi Street, St. Louis, MO        | 68118   | Partial                        |         |  |
|                                   | ^0027252100   |                            | 3454   | 0.08  |                               |                                     |  |   |                            |                          | Taxable Below Min. Value      |                            |                | Anheuser Busch Inc.            | 721 Pestalozzi Street, St. Louis, MO        | 68118   | Partial                        |         |  |
|                                   | ^0027252110   |                            | 3316   | 0.08  |                               |                                     |  |   |                            |                          | Taxable Below Min. Value      |                            |                | Anheuser Busch Inc.            | 721 Pestalozzi Street, St. Louis, MO        | 68118   | Partial                        |         |  |
|                                   | ^0028200560   |                            | 5396   | 0.12  |                               |                                     |  |   |                            |                          | Taxable Below Min. Value      |                            |                | Anheuser Busch Inc.            | 721 Pestalozzi Street, St. Louis, MO        | 68118   | Partial                        |         |  |
|                                   | ^0027272080   |                            | 417002   | 9.57  | 29.44                         | 1,282,406                           | 2  |   |                            | vacant land              | Government                    | 2543 Cordelia Road         |                | Solano County                  | 675 Texas Street                            | 94533   | Partial                        |         |  |
| Alternative B - Map 2             | ^0148260090   |                            | 168239   | 3.86  | 30.61                         | 1,333,372                           |  |   |                            |                          | Agricultural Land             | 1687 Jameson Canyon Road   |                | Susan and Thomas Turner        | 1687 James Canyon Road, American Canyon, CA | 94503   | Partial                        |         |  |
|                                   | ^0148260050   |                            | 501071   | 11.50   | 44.04                         | 1,918,382                           |  |   |                            |                          | Range and Watershed           | 1646 State Highway 12      |                | Luis and Yolando Salem         | 2321 Big Ranch Road, Napa, CA               | 94558   | Partial                        |         |  |
|                                   | ^0148260060   |                            | 111549   | 2.56  | 2.72                          | 118,324                             |  |   |                            |                          | Range and Watershed           |                            |                | Luis and Yolando Salem         | 2321 Big Ranch Road, Napa, CA               | 94558   | Partial                        |         |  |
|                                   | ^0180010020   |                            | 69339  | 1.59  |                               |                                     |  |   |                            | Railway Tracks           | Government                    |                            |                | Union Pacific Railroad Co.     | 1400 Douglas Stop, 1640 Omaha, NE           | 68179-1640  | Partial                        |         |  |
|                                   | ^0148260080   |                            | 614488   | 14.11   | 21.66                         | 943,510                             |  |   |                            |                          | Range and Watershed           |                            |                | Susan and Thomas Turner        | 1687 James Canyon Road, American Canyon, CA | 94503   | Partial                        |         |  |
|                                   | ^0148260040   |                            | 22092  | 0.51  |                               |                                     | 1  |   |                            | vacant land              | Government                    | 1827 State Highway 12      |                | Vallejo City                   | 555 Santa Clara Street, Vallejo, CA         | 94590   | Partial                        |         |  |
|                                   | ^0148260010   |                            | 838434   | 19.25   | 256.1                         | 11,155,716                          |  |   |                            |                          | Range and Watershed           |                            |                | Gary and Mary Mangels          | 2294 Morrison Lane                          | 94534   | Partial                        |         |  |
|                                   | ^0148270010   |                            | 97393  | 2.24  | 12.8                          | 557,568                             |  |   |                            |                          | Range and Watershed           | 3537 Roberts Road          |                | Gary and Mary Mangels          | 2294 Morrison Lane                          | 94534   | Partial                        |         |  |
|                                   | ^0148270340   |                            | 193292   | 4.44  | 42.23                         | 1,839,539                           |  |   |                            |                          | Range and Watershed           |                            |                | Robert W. Dittmer              | 3539 Roberts Road                           | 94534   | Partial                        |         |  |
|                                   | ^0148270240   |                            | 209583   | 4.81  | 14.98                         | 652,529                             |  |   |                            |                          | Range and Watershed           |                            |                | Robert W. Dittmer              | 3539 Roberts Road                           | 94534   | Partial                        |         |  |
|                                   | ^0148270060   |                            | 132386   | 3.04  | 5.99                          | 260,924                             |  |   |                            |                          | Agricultural Land             |                            |                | Robert W. Dittmer              | 3539 Roberts Road                           | 94534   | Partial                        |         |  |
|                                   | ^0180010100   |                            | 961215   | 22.07   |                               |                                     |  |   |                            |                          | Improved SFR properties       | 117 Red Top Road           | 94534-9500     | Margaret Ferrari               | 5987 Twin Sisters Cout, Suisun City, CA     | 94585   | Partial                        |         |  |
|                                   | ^0180010080   |                            | 12150  | 0.28  |                               |                                     |  |   |                            |                          | Commercial Sales & Service    | 107 Red Top Road           | 94534-9500     | Victoria Land Partners LP      | 3655 Nobel Drive, San Diego, CA             | 92122   | Partial                        |         |  |
|                                   | ^0180010070   |                            | 11948  | 0.27  |                               |                                     |  |   |                            |                          | Service Station               | 119 Red Top Road           | 94534-9500     | Convenience Retailers LLC      | PO Box 59365 Schaumburg, IL                 | 60159-0365  | Partial                        |         |  |
|                                   | ^0180010090   |                            | 8764   | 0.20  |                               |                                     |  |   |                            | vacant land              | Government                    |                            |                | Fairfield City                 | 1000 Webster Street, 3rd Floor              | 94533   | Partial                        |         |  |
|                                   | ^0180010050   |                            | 37365  | 0.86  |                               |                                     | 1  |   | Sunnyside Farms            | Producer of Milk         | Manufacturing and Warehousing | 199 Red Top Road           | 94534-9500     | Super Store Industries         | PO Box 2898                                 | 94533   | Partial                        |         |  |
|                                   | ^0180010110   |                            | 313  | 0.01  |                               |                                     |  |   |                            | vacant land              | Vacant Commercial Land        |                            |                | Margaret Ferrari               | 5987 Twin Sisters Cout, Suisun City, CA     | 94585   | Partial                        |         |  |
|                                   | ^0180160180   |                            | 25701  | 0.59  |                               |                                     |  |   |                            |                          | Vacant Industrial Land        |                            |                | Albert D Seeno Const. Co.      | 4021 Port Chicago Highway, Concord          | 94520   | Partial                        |         |  |
|                                   | ^0180140290   |                            | 15794  | 0.36  |                               |                                     |  |   |                            |                          | Manufacturing and Warehousing | 5200 Watt Circle           | 94534-4209     | Carlsen Investments LLC        | PO Box 4900, Scottsdale, AZ                 | 95261-4900  | Partial                        |         |  |
|                                   | ^0180120080   |                            | 17018  | 0.39  |                               |                                     |  |   |                            |                          | Vacant Industrial Land        | 9321 West Cordelia Road    |                | Vision Integral Properties LLC | 9321 West Cordelia Road                     | 94534   | Partial                        |         |  |
|                                   | ^0180120070   |                            | 27050  | 0.62  |                               |                                     |  |   |                            |                          | Vacant Industrial Land        | 9321 West Cordelia Road    |                | Vision Integral Properties LLC | 9321 West Cordelia Road                     | 94534   | Partial                        |         |  |
|                                   | ^0180120050   |                            | 5327   | 0.12  |                               |                                     |  |   |                            |                          | Manufacturing and Warehousing | 9324 West Cordelia Road    |                | Curtis and CC Beckwith         | 131 Hidden Glen Court, Vacaville, CA        | 95688   | Partial                        |         |  |
|                                   | ^0180120060   |                            | 128450   | 2.95  |                               |                                     |  |   |                            | vacant land              | Vacant Industrial Land        |                            |                | North Bay Properties LLC       | 250 Dittmer Road                            | 94534   | Partial                        |         |  |
|                                   | ^0180120010   |                            | 76836  | 1.76  |                               |                                     |  |   |                            | vacant land              | Vacant Industrial Land        |                            |                | North Bay Properties LLC       | 250 Dittmer Road                            | 94534   | Partial                        |         |  |
|                                   | ^0180120150   |                            | 13857  | 0.32  |                               |                                     | 1  |   | Ashley Furniture Homestore | Furniture Store          | Commercial Sales & Service    | 4865 Auto Plaza court      | 94534          | Howard Harstad                 | PO Box 9760 Seattle, WA                     | 98109   | Full                           |         |  |
|                                   | ^0180110050   | ^0180110250                | 82242  | 1.89  |                               |                                     |  |   |                            |                          |                               |                            |                |                                | Retail Endeavors Group XI Ltd.              | 1431 FM 1101 New Braunfels, TX                    | 78130                          | Partial |  |
|                                   |               | ^0180110260                |  | 0.00  |                               |                                     |  |   |                            |                          |                               |                            |                |                                | Simvest Real Estate VII LLC                 | 655 Montgomery Street, ST 1190, San Francisco, CA | 94111                          | Partial |  |
|                                   | ^0180110040   |                            | 83271  | 1.91  |                               |                                     | 1  |   | Saturn Dealership          | Seller of cars           | Commercial Sales & Service    | 4850 Auto Plaza CT         | 94534-1637     | Benson Investment Inc.         | 6040 Commerce Boulevard, Rohnert Park, CA   | 94928   | Partial                        |         |  |
|                                   | ^0180110030   | ^0180110240                | 146226   | 3.36  |                               |                                     | 1  |   | ARCO Gas Station           | Service Station          | Service Station               | 4800 Auto Plaza CT         |                | Kerry Egan                     | PO Box 5015 Buena Park, CA                  | 90622   | Partial                        |         |  |
|                                   | ^0180110230   |                            |  |   |                               |                                     |  |   |                            |                          |                               |                            |                |                                |   |   |                                |         |  |
|                                   | ^0148270220   |                            | 31916  | 0.73  |                               |                                     |  |   |                            |                          | Commercial Sales & Service    | 5253 Business Center Dr    | 94534-1795     | Pem Green Valley H LLC         | 10303 NW Freeway Houston, TX                | 77092   | Partial                        |         |  |
|                                   | ^0148270290   |                            | 435698   | 10.00   |                               |                                     |  |   |                            | vacant land              | Government                    |                            |                |                                | Fairfield Redevelopment Agency              | 1000 Webster Street                               | 94533                          | Partial |  |
|                                   | ^0148280120   |                            | 6557   | 0.15  |                               |                                     |  |   |                            | vacant land              | Government                    |                            |                |                                | Fairfield Redevelopment Agency              | 1000 Webster Street                               | 94533                          | Full    |  |
|                                   | ^0148280290   |                            | 6585   | 0.15  |                               |                                     |  |   |                            |                          | Commercial Sales & Service    | 5051 Business Center Drive | 94534-1631     | Safeway Inc.                   | 1371 Oakland Boulevard, Walnut Creek        | 94596-4349  | Partial                        |         |  |
|                                   | ^0148280280   |                            | 3819   | 0.09  |                               |                                     |  |   |                            |                          | Commercial Sales & Service    | 5041 Business Center Drive | 94534-1786     | Watt/Fairfield Associates      | PO Box 131071 Carlsbad                      | 92013   | Partial                        |         |  |
|                                   | No Data       |                            | 3424   | 0.08  |                               |                                     |  |   |                            |                          |                               |                            |                |                                |   |   |                                | Partial |  |
| ^0148280130                       |               | 22026                      | 0.51   |   |                               |                                     |  |   | vacant land                | Government               | 3683 Green Valley Road        | 94534                      | Fairfield City | 1000 Webster Street            | 94533                                       | Full  |                                |         |  |
| ^0148280140                       |               | 26257                      | 0.60   |   |                               |                                     |  |   | vacant land                | Government               |                               |                            |                | Fairfield Redevelopment Agency | 1000 Webster Street                         | 94533   | Full                           |         |  |
| ^0045280160                       |               | 9044                       | 0.21   |   |                               |                                     |  |   |                            |                          |                               |                            |                | Fairfield City                 | 1000 Webster Street                         | 94533   | Partial                        |         |  |
| ^0045280070                       |               | 9850                       | 0.23   |   |                               |                                     |  |   |                            |                          |                               |                            |                | Fairfield City                 | 1000 Webster Street                         | 94533   | Partial                        |         |  |
| ^0045280060                       |               | 8237                       | 0.19   |   |                               |                                     |  |   |                            |                          |                               |                            |                | Fairfield City                 | 1000 Webster Street                         | 94533   | Partial                        |         |  |
| ^0045280050                       | ^0045280040   | 8333                       | 0.19   |   |                               |                                     |  |   |                            |                          |                               |                            |                | Fairfield City                 | 1000 Webster Street                         | 94533   | Partial                        |         |  |



| Map                   | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building(s) to be displaced | # of Existing Residential Building(s) to be displaced | Name of Business                  | Use of Existing Building          | Property Type                 | Displacement Address       | Zipcode    | Owner                                       | Owner Address                             | Owner Zipcode | Full or Partial Take of Parcel | Notes |
|-----------------------|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|-----------------------------------|-----------------------------------|-------------------------------|----------------------------|------------|---|---|---------------|--------------------------------|-------|
|                       | '0045280040   | '0045280450                | 2233   | 0.05  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045280030   |                            | 4984   | 0.11  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045280010   |                            | 3579   | 0.08  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045280440   |                            | 102336   | 2.35  |                               |                                     |  |   |                                   | vacant land                       | Government                    |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Full                           |       |
|                       | '0045280280   |                            | 9015   | 0.21  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045280450   |                            | 77178  | 1.77  |                               |                                     |  |   |                                   | vacant land                       | Government                    |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045280540   |                            | 10446  | 0.24  |                               |                                     |  |   |                                   |                                   | Vacant Commercial Land        | 4725 Business Center Drive | 94534-1916 | Kaiser Foundation Health Plan Inc.          | ATTN Tax and Insurance Oakland            | 94612         | Partial                        |       |
|                       | '0045280550   |                            | 54782  | 1.26  |                               |                                     | parking lot  |   |                                   |                                   | Commercial Sales & Service    | 4665 Business Center Drive | 94534-     | Copart Inc.                                 | 4665 Business Center Drive                | 94534         | Partial                        |       |
|                       | '0045280560   |                            | 27453  | 0.63  |                               |                                     |  |   |                                   |                                   | Vacant Commercial Land        |                            |            | Copart Inc.                                 | 4665 Business Center Drive                | 94534         | Partial                        |       |
|                       | '0180110010   |                            | 46731  | 1.07  |                               |                                     |  |   |                                   | vacant land                       | Government                    |                            |            | Pacific Gas and Electric                    | Tax Dept. B8E, San Francisco, CA          | 94177         | Partial                        |       |
|                       | '0180110020   |                            | 14650  | 0.34  |                               |                                     |  |   |                                   | vacant land                       | Government                    |                            |            | Pacific Gas and Electric                    | Tax Dept. B8E, San Francisco, CA          | 94177         | Full                           |       |
|                       | '0045090120   |                            | 21025  | 0.48  |                               |                                     |  |   |                                   |                                   | Vacant SFR Land               | 2091 Cordelia Road         |            | 2097 & 2121 Cordelia Road LLC               | 4384 Edinburg CT                          | 94534-9454    | Full                           |       |
|                       | '0045090260   |                            | 23366  | 0.54  |                               |                                     |  |   |                                   |                                   | Vacant SFR Land               |                            |            | Michael D and Anita O'Brien                 | 1908 Vintage Lane                         | 94534         | Full                           |       |
|                       | '0045081320   |                            | 29930  | 0.69  |                               |                                     |  |   | Direct Buy                        | Electronics Store                 | Manufacturing and Warehousing | 5090 Central Way           |            | Michael D and Anita O'Brien                 | 1908 Vintage Lane                         | 94534         | Full                           |       |
|                       | '0045300010   | '0045300380                | 8247   | 0.19  |                               |                                     |  |   |                                   |                                   |                               |                            |            | James & cheryl Campi                        | 4334 Rock Lane                            | 94533         | Partial                        |       |
|                       | '0045300020   |                            | 15675  | 0.36  |                               |                                     |  |   |                                   | vacant land                       | Possible Commercial Land      |                            |            | James & cheryl Campi                        | 4334 Rock Lane                            | 94533         | Partial                        |       |
|                       | '0045300030   |                            | 8233   | 0.19  |                               |                                     |  |   | Residential House                 | house                             | Single Family Residential     | 4912 Central Way           |            | James & cheryl Campi                        | 4334 Rock Lane                            | 94533         | Partial                        |       |
|                       | '0045300040   |                            | 8330   | 0.19  |                               |                                     | 1  |   |                                   | vacant shack (possibly 50+ years) | Vacant SFR Land               |                            |            | James & cheryl Campi                        | 4334 Rock Lane                            | 94533         | Partial                        |       |
|                       | '0045300070   |                            | 19073  | 0.44  |                               |                                     | 2  |   |                                   | vacant land                       | Government                    |                            |            | Fairfield Suisun Unified School District    | 1025 Delaware Street                      | 94533         | Partial                        |       |
|                       | '0045300080   |                            | 73850  | 1.70  |                               |                                     | 1  |   | California Teacher's Association  | Teacher's Association             | Commercial Sales & Service    | 4751 Central Way           | 94534-1612 | California Teachers Association Bay Section | 1705 Murchison Drive, Burligame, CA       | 94010         | Partial                        |       |
|                       | '0045300350   | 387                        |  | 0.01  |                               |                                     | 1  |   | Continental Auto Glass            | Auto Glass Install & Repair       | Manufacturing and Warehousing | 4737 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   |                                   | vacant land                       | Vacant Commercial Land        | 4739 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Cordelia Automotive               | Body Shop                         | Commercial Sales & Service    | 4741 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Warehouse Furniture               | Furniture Store                   | Commercial Sales & Service    | 4743 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       | '0045300340   |                            | 23399  | 0.54  |                               |                                     | parking lot  |   | Solano Education Coalition        | Education Association             | Commercial Sales & Service    | 4735 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       | '0045300370   | 8897                       |  | 0.20  |                               |                                     | 1  |   | Metro II                          |                                   | Manufacturing and Warehousing | 4733 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Full                           |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Anyone's Off-Road & Custom        | Body Shop                         | Manufacturing and Warehousing | 4733 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Al's Tile and Marble Fino         | Marble tile store                 | Manufacturing and Warehousing | 4733 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       | '0045300360   |                            | 8179   | 0.19  |                               |                                     | 1  |   | Room Express Furniture            | Furniture Store                   | Manufacturing and Warehousing | 4731 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                        | 94510         | Partial                        |       |
|                       | '0045300200   |                            | 148  | 0.00  |                               |                                     | 1  |   | Ponder Environmental Services     | Environmental Consuting Firm      | Office Use                    | 125 Grobric CT             | 94534-1620 | Dieter & Michelle Folk                      | 7088 Pleasants Valley Road, Vacaville, CA | 95688-9010    | Partial                        |       |
|                       | '0045300290   |                            | 11725  | 0.27  |                               |                                     | 1  |   | California Marine Sports          | Aquatic Marine Store              | Commercial Sales & Service    | 101 Grobric CT             | 94534-1673 | Earl Baca                                   | 3901 Serenity Hills Dr, Vacaville         | 95688         | Partial                        |       |
|                       | '0045300280   |                            | 11567  | 0.27  |                               |                                     |  |   |                                   | vacant land                       | Vacant Commercial Land        |                            |            | Earl Baca                                   | 3901 Serenity Hills Dr, Vacaville         | 95688         | Partial                        |       |
|                       | '0045300270   |                            | 42633  | 0.98  |                               |                                     |  |   |                                   | vacant land                       | Vacant Industrial Land        |                            |            | Ray and Dalia Shamieh                       | 1545 N Texas Street                       | 94533         | Partial                        |       |
|                       | '0045300260   |                            | 4650   | 0.11  |                               |                                     | 1  |   | Statewide Safety & Signs Inc.     | Producers of Signs                | Manufacturing and Warehousing | 130 Grobric CT             | 94534      | Don & Tamara Nicholas                       | 6325 Mira Cielo, San Luis Obispo          | 93401         | Partial                        |       |
|                       | '0045310010   |                            | 76204  | 1.75  |                               |                                     | 1  |   | Pearson's Appliance & TV          | Appliance & Tv store              | Commercial Sales & Service    | 4685 Central Way           | 94534-1610 | Pearson Family Trust                        | 4167 Oakwood Drive                        | 94534         | Partial                        |       |
|                       | '0045310430   | '0045310880                | 14042  | 0.32  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Gonsalves & Santucci Inc.                   | 5141 Commercial Circle, Concord           | 94520         | Partial                        |       |
|                       | '0045310420   |                            | 15378  | 0.35  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Gonsalves & Santucci Inc.                   | 5141 Commercial Circle, Concord           | 94520         | Partial                        |       |
|                       | '0045310400   | '0045310880                | 2905   | 0.07  |                               |                                     |  |   |                                   | vacant land                       | Government                    |                            |            | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045310390   |                            | 22429  | 0.51  |                               |                                     |  |   |                                   |                                   |                               |                            |            | Gonsalves & Santucci Inc.                   | 5141 Commercial Circle, Concord           | 94520         | Partial                        |       |
|                       | '0045310550   | 1551                       |  | 0.04  |                               |                                     | 1  |   | Golf Shop                         | Golf equipment                    | Commercial Sales & Service    | 104 Commerce CT            | 94534-1781 | Vacso Development                           | 50 Crestview Drive, Orinda                | 94563         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Campways                          | Camping equipment                 | Commercial Sales & Service    | 104 Commerce CT            | 94534-1781 | Vacso Development                           | 50 Crestview Drive, Orinda                | 94563         | Partial                        |       |
|                       | '0045310650   | '0045310890                | 139134   | 3.19  |                               |                                     | 1  |   | Davita Fairfield Dialysis         | Dialysis Clinic                   | Commercial Sales & Service    | 4670 Central Way           | 94534      | B&L Properties II LLC                       | 97 Dobbins Street, Vacaville, CA          | 95688         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Boot Barn Western & Work Wear     | Clothing Store                    | Commercial Sales & Service    | 4670 Central Way           | 94534      | B&L Properties II LLC                       | 97 Dobbins Street, Vacaville, CA          | 95688         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Bischoff's Medical Supplies       | Medical Supplies                  | Commercial Sales & Service    | 4670 Central Way           | 94534      | B&L Properties II LLC                       | 97 Dobbins Street, Vacaville, CA          | 95688         | Partial                        |       |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Ultimate Water Sports             | Water Sport Equipment Store       | Commercial Sales & Service    | 4670 Central Way           | 94534      | B&L Properties II LLC                       | 97 Dobbins Street, Vacaville, CA          | 95688         | Partial                        |       |
|                       | '0045310560   |                            |  | 0.00  |                               |                                     |  |   | RV Park                           | RV Park                           | Commercial Sales & Service    | 4560 Central Way           | 94534      | Fairfield City                              | 1000 Webster Street                       | 94533         | Partial                        |       |
|                       | '0045310660   |                            | 118088   | 2.71  |                               |                                     | 1  |   | Cordelia Junction Antiques Lounge | Antique store                     | Commercial Sales & Service    | 4560 Central Way           | 94534-1609 | Maurice Epps                                | 8 Willotta Drive                          | 94534         | Partial                        |       |
| Alternative B - Map 3 | '0045310180   | '0045310890                | 59578  | 1.37  |                               |                                     |  |   |                                   |                                   |                               |                            |            | B&L Properties II LLC                       | 97 Dobbins Street, Vacaville, CA          | 95688         | Partial                        |       |
|                       | '0045310600   |                            | 413  | 0.01  |                               |                                     |  |   |                                   |                                   | Vacant Commercial Land        |                            |            | Edith Huey-Chu Hsieh                        | 2536 Cerro Vista Lane, Alamo, CA          | 94507         | Partial                        |       |





| Map | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building(s) to be displaced | # of Existing Residential Building(s) to be displaced | Name of Business            | Use of Existing Building | Property Type                 | Displacement Address       | Zipcode    | Owner                          | Owner Address                           | Owner Zipcode | Full or Partial Take of Parcel | Notes  |
|-----|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|-----------------------------|--------------------------|-------------------------------|----------------------------|------------|--------------------------------|---|---------------|--------------------------------|--|
|     | '0045310870   |                            | 22889  | 0.53  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | JSR Enterprises                | 4106 Fall Creek CT                      | 94534         | Partial                        |  |
|     | '0045310560   |                            | 4560   | 0.10  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Fairfield City                 | 1000 Webster                            | 94533         | Partial                        |  |
|     | '0045310860   |                            | 70542  | 1.62  |                               |                                     | 2  |   | Jack in the Box             | Fast Food Restaurant     | Commercial Sales & Service    | 4490 Central Way           | 94534-1609 | JSR Enterprises                | 4106 Fall Creek CT                      | 94534         | Partial                        |  |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Chevron Gas Station         | Gas/Service Station      | Service Station               | 4490 Central Way           | 94534-1609 | JSR Enterprises                | 4106 Fall Creek CT                      | 94534         | Partial                        |  |
|     | '0045310580   | '0045310850                | 6405   | 0.15  |                               |                                     | 1  |   | Starbucks                   | Coffee/Food              | Commercial Sales & Service    | 4470 Central Way           | 94534-1805 | Origone & Origone              | 5261 N Highway 99, Stockton, CA         | 95212         |                                |  |
|     | '0045310850   |                            | 21634  | 0.50  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 4470 Central Way           | 94534-1805 | Origone & Origone              | 5261 N Highway 99, Stockton, CA         | 95212         | Full                           |  |
|     | '0045310120   |                            | 6745   | 0.15  |                               |                                     |  |   |                             |                          | Service Station               | 4450 Central Way           | 94534-1805 | World Oil Management Co.       | PO Box 2099 Houston TX                  | 77252         | Partial                        |  |
|     | '0045340500   |                            | 3186   | 0.07  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 190 Pittman Road           | 94534-1654 | Worthing Ford Buxton           | 2700 Mt Diablo Boulevard, Lafayette, CA | 94549         | Partial                        |  |
|     | '0045340180   |                            | 3933   | 0.09  |                               |                                     | parking lot  |   |                             |                          | Service Station               | 134 Pittman Road           | 94534-1654 | Clover Trust 1997-1            | PO Box 59365 Schaumburg, IL             | 60159-0365    | Partial                        |  |
|     | '0045280550   |                            | 54782  | 1.26  |                               |                                     | parking lot  |   |                             |                          | Commercial Sales & Service    | 4665 Business Center Drive | 94534-1675 | Copart Inc.                    | 4665 Business Center Drive              | 94534         | Partial                        |  |
|     | '0045280560   |                            | 27453  | 0.63  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Copart Inc.                    | 4665 Business Center Drive              | 94534         | Partial                        |  |
|     | '0045280570   |                            | 49395  | 1.13  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Copart Inc.                    | 4665 Business Center Drive              | 94534         | Partial                        |  |
|     | '0045280590   |                            | 84950  | 1.95  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Green Valley Land LLC          | 4820 Business Center Drive              | 94534         | Partial                        |  |
|     | '0045280490   |                            | 34417  | 0.79  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                     | 94533         | Partial                        |  |
|     | '0045280530   |                            | 68530  | 1.57  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                     | 94533         | Partial                        |  |
|     | '0045340320   |                            | 13610  | 0.31  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 4350 Central PL            | 94534-1605 | Fairfield CWI Associated Ltd.  | PO Box 90018 Bowling Green, KY          | 42102-9018    | Partial                        |  |
|     | '0045340110   |                            | 7351   | 0.17  |                               |                                     | small nortion of a mini-                           |   | Scandia Family Center       |                          | Commercial Sales & Government | 4300 Central Way           | 94534      | Laura & Lee Jensen             | 1889 Altas Peak Road, Napa              | 94558         | Partial                        |  |
|     | '0027260250   |                            | 567  | 0.01  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                     | 94533         | Partial                        |  |
|     | '0027260240   |                            | 3815   | 0.09  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Garaventa FF Commons LLC       | 2540 Bates Avenue, Concord              | 94520         | Partial                        |  |
|     | '0027260230   |                            | 355819   | 8.17  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                     | 94533         | Partial                        |  |
|     | '0027260230   |                            | 136684   | 3.14  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        | 290 Campus CT              | 94534      | 88/12                          | 4080 Mallard Drive, Concord, CA         | 94520         | Partial                        |  |
|     | No Data       |                            | 87813  | 2.02  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            |                                |   |               | Partial                        | No parcel number                                 |
|     | '0027350010   | '0027350060                | 208067   | 4.78  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | 88/12                          | 4080 Mallard Drive, Concord, CA         | 94520         | Partial                        |  |
|     | '0027260220   |                            | 89263  | 2.05  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Mary Garaventa                 | 4080 Mallard Drive, Concord, CA         | 94520         | Partial                        |  |
|     | '0027260200   | '0027350070                | 14089  | 0.32  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Mary Garaventa                 | 4080 Mallard Drive, Concord, CA         | 94520         | Partial                        |  |
|     | '0027271030   |                            | 6913   | 0.16  | 0.2                           | 7,840                               |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                     | 94533         | Partial                        |  |
|     | No Data       |                            | 10339  | 0.24  |                               |                                     |  |   |                             |                          |                               |                            |            |                                |   |               | Partial                        | No parcel number                                 |
|     | '0027271060   |                            | 490213   | 11.25   | 18                            | 784,080                             | 7 buildings (hay/tools/misc.)                      | 1   |                             | farm land                | Agricultural Land             | 4018 Russell Road          |            | Michelle Valine                | 4000 Russell Road, Suisun City          | 94585         | Partial                        |  |
|     | '0027251330   |                            | 576910   | 13.24   | 61.86                         | 2,694,622                           |  |   |                             |                          | Agricultural Land             | 4000 Russell Road          |            | Michelle Valine                | 4000 Russell Road, Suisun City          | 94585         | Partial                        |  |
|     | '0027251060   |                            | 13954  | 0.32  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | S I D                          | PO Box 536, Vacaville, CA               | 95688         | Partial                        |  |
|     | '0027251390   |                            | 3102   | 0.07  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | S I D                          | PO Box 536, Vacaville, CA               | 95688         | Partial                        |  |
|     | '0027251400   |                            | 2702   | 0.06  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City          | 94585         | Partial                        |  |
|     | '0027251340   |                            | 5828   | 0.13  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City          | 94585         | Partial                        |  |
|     | '0027251440   |                            | 88806  | 2.04  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City          | 94585         | Partial                        |  |
|     | No Data       |                            | 365967   | 8.40  |                               |                                     |  |   |                             |                          |                               |                            |            |                                |   |               | Partial                        | No parcel number, part of Fairfield linear trail |
|     | '0027251420   |                            | 6072   | 0.14  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City          | 94585         | Full                           |  |
|     |               |                            | 9587   | 0.22  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Raymond & Betty Conner         | 39 Conner Court                         | 94534         | Partial                        |  |
|     | '0027510030   |                            | 55309  | 1.27  |                               |                                     |  |   |                             |                          |                               |                            |            | Raymond & Betty Conner         | 39 Conner Court                         | 94534         |                                | No parcel number, part of Fairfield linear trail |
|     | '0027510070   |                            | 44012  | 1.01  |                               |                                     |  |   |                             |                          | Commercial                    | 4088 Russell Road          |            | Moore Partnership I Ltd.       | 4088 Russell Road                       | 94534         | Partial                        |  |
|     | '0027510160   |                            | 11721  | 0.27  | 4.85                          | 211,266                             |  |   |                             |                          | Agricultural Land             |                            |            | Clyde Loney                    | 4135 Abernathy Road                     | 94534         | Partial                        |  |
|     | '0027510200   |                            | 43920  | 1.01  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | California State               | District 10 PO Box 2048, Stockton, CA   | 95201         | Partial                        |  |
|     | '0027510210   |                            | 61095  | 1.40  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | California State               | District 10 PO Box 2048, Stockton, CA   | 95201         | Partial                        |  |
|     | '0027510010   |                            | 146961   | 3.37  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                     | 94533         | Full                           |  |
|     | '0027510060   |                            | 1417   | 0.03  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | California State               | Department of Transportation, Stockton  | 95201         | Full                           |  |
|     | '0028200530   | '0028200740                | 5170   | 0.12  |                               |                                     |  |   |                             |                          |                               |                            |            | Fairfield Ford Inc.            | 3050 Automall Court                     | 94534         | Partial                        |  |
|     | '0028200570   |                            | 7539   | 0.17  |                               |                                     |  |   |                             |                          |                               |                            |            | Fairfield Ford Inc.            | 3050 Automall Court                     | 94534         | Partial                        |  |
|     | '0028750040   |                            | 5709   | 0.13  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Anheuser Busch Inc.            | 721 Pestalozzi Street, St. Louis, MO    | 63118         | Full                           |  |
|     | '0028750030   |                            | 4625   | 0.11  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Busch Properties               | One Busch Place, St. Louis, MO 63118    |               | Full                           |  |
|     | '0150270090   |                            | 82008  | 1.88  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                     | 94533         | Partial                        |  |
|     | '0150270050   |                            | 43918  | 1.01  | 7.66                          | 333,670                             |  |   |                             |                          | Agricultural Land             | 2814 Rockville Road        |            | Dorene Darville                | 2802 Rockville Road                     | 94534         | Partial                        |  |
|     | '0150270060   |                            | 89095  | 2.05  | 10.47                         | 456,073                             |  |   |                             |                          | Agricultural Land             | 2818 Rockville Road        |            | Dorene Darville                | 2802 Rockville Road                     | 94534         | Partial                        |  |
|     | '0150270080   |                            | 43198  | 0.99  |                               |                                     | 2  |   | Suisun Valley Fruit Growers | Fruit Orchards           | Manufacturing and Warehousing | 4163 Chadbourne Road       |            | Suisun Valley Fruit Growers    | Box 417, Suisun                         | 94585         | Partial                        |  |
|     | '0150240010   |                            | 55110  | 1.27  |                               |                                     |  |   | Bike Path                   | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                     | 94533         | Partial                        | Bike Path  |
|     | '0150240020   |                            | 7767   | 0.18  |                               |                                     | 2  |   | Suisun Valley Fruit Growers | Fruit Orchards           | Manufacturing and Warehousing | 4162 Chadbourne Road       |            | Suisun Valley Fruit Growers    | Box 417, Suisun                         | 94585         | Partial                        |  |



| Map                     | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building(s) to be displaced | # of Existing Residential Building(s) to be displaced | Name of Business                 | Use of Existing Building      | Property Type                 | Displacement Address       | Zipcode    | Owner                                       | Owner Address                        | Owner Zipcode | Full or Partial Take of Parcel | Notes |
|-------------------------|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|----------------------------------|-------------------------------|-------------------------------|----------------------------|------------|---|--------------------------------------|---------------|--------------------------------|-------|
| Alternative B-1 - Map 4 | '0148270060   |                            | 252  | 0.01  | 5.99                          | 260,924                             |  |   |                                  |                               | Agricultural Land             |                            |            | Robert W. Dittmer                           | 3539 Roberts Road                    | 94534         | Partial                        |       |
|                         | '0148270290   |                            | 49137  | 1.13  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0180110040   |                            | 6861   | 0.16  |                               |                                     |  |   |                                  |                               | Commercial Sales & Service    | 4850 Auto Plaza CT         | 94534-1637 | Benson Investment Inc.                      | 6040 Commerce Boulevard              | 94928         | Partial                        |       |
|                         | '0180110030   | '0180110240                | 62927  | 1.44  | 4.23                          | 184,258                             |  |   |                                  |                               | Agricultural Land             | 105 Lopes Road             | 94534-6847 | Kerry Egan                                  | PO Box 5015 Buena Park, CA           | 90622         | Partial                        |       |
|                         | '0148280150   |                            | 330  | 0.01  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0148280140   |                            | 26257  | 0.60  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0148280130   |                            | 22026  | 0.51  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Full                           |       |
|                         | '0148280120   |                            | 6557   | 0.15  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Full                           |       |
|                         | '0148280290   |                            | 6585   | 0.15  |                               |                                     |  |   |                                  |                               | Commercial Sales & Service    | 5051 Business Center Drive | 94534-1631 | Safeway Inc.                                | 1371 Oakland Boulevard, Walnut Creek | 94596-4349    | Partial                        |       |
|                         | '0148280280   |                            | 3819   | 0.09  |                               |                                     |  |   |                                  |                               | Commercial Sales & Service    | 5041 Business Center Drive | 94534-1786 | Watt/Fairfield Associates                   | PO Box 131071 Carlsbad               | 92013         | Partial                        |       |
|                         | '0045280160   |                            | 9044   | 0.21  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280070   |                            | 9850   | 0.23  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280060   | '0045280440                | 8237   | 0.19  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280050   |                            | 8333   | 0.19  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280040   |                            | 2233   | 0.05  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280030   |                            | 4984   | 0.11  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280440   |                            | 64532  | 1.48  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280280   | 45280450                   | 8078   | 0.19  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280450   |                            | 21080  | 0.48  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield City                              | 1000 Webster Street, 3rd Floor       | 94533         | Partial                        |       |
|                         | '0045280540   |                            | 79207  | 1.82  |                               |                                     |  |   |                                  |                               | Vacant Commercial land        | 4725 Business Center Drive | 94534-1916 | Kaiser Foundation Health Plan Inc.          | ATTN Tax and Insurance Oakland       | 94612         | Partial                        |       |
|                         | '0045280550   |                            | 52700  | 1.21  |                               |                                     | parking lot  |   |                                  |                               | Commercial Sales & Service    | 4665 Business Center Drive | 94534-1675 | Copart Inc.                                 | 4665 Business Center Drive           | 94534         | Partial                        |       |
|                         | '0045280560   |                            | 19069  | 0.44  |                               |                                     |  |   |                                  |                               | Vacant Commercial Land        |                            |            | Copart Inc.                                 | 4665 Business Center Drive           | 94534         | Partial                        |       |
|                         | '0045280570   |                            | 28925  | 0.66  |                               |                                     |  |   |                                  |                               |                               |                            |            |   |                                      |               |                                |       |
|                         | '0045280590   |                            | 70953  | 1.63  |                               |                                     |  |   |                                  |                               | Vacant Commercial land        |                            |            | Green Valley Land LLC                       | 4820 Business Center Drive           | 94543         | Partial                        |       |
|                         | '0045280490   |                            | 34417  | 0.79  |                               |                                     |  |   |                                  |                               | Vacant Commercial land        |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0045280530   |                            | 68530  | 1.57  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0027260250   |                            | 567  | 0.01  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0027260240   |                            | 100070   | 2.30  |                               |                                     |  |   |                                  |                               | Vacant Commercial land        |                            |            | Garaventa FF Commons LLC                    | 2540 Bates Avenue, Concord           | 94520         | Partial                        |       |
|                         | '0027340080   |                            | 136984   | 3.14  |                               |                                     |  |   |                                  |                               |                               |                            |            |   |                                      |               |                                |       |
|                         | '0027260230   |                            | 35656  | 0.82  |                               |                                     |  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Redevelopment Agency              | 1000 Webster Street                  | 94533         | Partial                        |       |
|                         | '0045090120   |                            | 21025  | 0.48  |                               |                                     |  |   |                                  |                               | Vacant SFR Land               | 2091 Cordelia Road         |            | 2097 & 2121 Cordelia Road LLC               | 4384 Edinburg CT                     | 94534-9454    | Partial                        |       |
|                         | '0045090260   |                            | 23366  | 0.54  |                               |                                     |  |   |                                  | vacant                        | Vacant SFR Land               |                            |            | Michael D and Anita O'Brien                 | 1908 Vintage Lane                    | 94534         | Partial                        |       |
|                         | '0045081320   |                            | 29930  | 0.69  |                               |                                     |  |   |                                  |                               | Manufacturing and Warehousing | 5090 Central Way           |            | Michael D and Anita O'Brien                 | 1908 Vintage Lane                    | 94534         | Partial                        |       |
|                         | '0045300010   | '0045300380                | 8247   | 0.19  |                               |                                     |  |   |                                  |                               |                               |                            |            | James & Cheryl Campi                        | 4334 Rock Lane                       | 94533         | Partial                        |       |
|                         | '0045300020   |                            | 15675  | 0.36  |                               |                                     |  |   |                                  |                               |                               |                            |            | James & Cheryl Campi                        | 4334 Rock Lane                       | 94533         | Partial                        |       |
|                         | '0045300030   |                            | 8233   | 0.19  |                               |                                     |  |   |                                  |                               | Residential                   | 4912 Central Way           |            | James & Cheryl Campi                        | 4334 Rock Lane                       | 94533         | Partial                        |       |
|                         | '0045300040   |                            | 8330   | 0.19  |                               |                                     |  |   | Vacant Shack *possibly 50+ years | vacant land                   | Vacant SFR Land               |                            |            | James & Cheryl Campi                        | 4334 Rock Lane                       | 94533         | Partial                        |       |
|                         | '0045300070   |                            | 17187  | 0.39  |                               |                                     | 2  |   |                                  | vacant land                   | Government                    |                            |            | Fairfield Suisun Unified School District    | 1025 Delaware Street                 | 94533         | Partial                        |       |
|                         | '0045300080   |                            | 73850  | 1.70  |                               |                                     | 1  |   | California Teacher's Association | Teacher's Association         | Government                    | 4751 Central Way           | 94534-1612 | California Teachers Association Bay Section | 1705 Murchison Drive                 | 94010         | Partial                        |       |
|                         | '0045300340   |                            | 23399  | 0.54  |                               |                                     |  |   | Solano Education Coalition       | Education Association         | Taxable Below Min. Value      | 4735 Central Way           | 94534      | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         | '0045300350   | 387                        |  | 0.01  |                               |                                     | 1  |   | Warehouse Furniture              | Furniture Store               | Manufacturing and Warehousing | 4743 Central Way           | 94534      | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Cordelia Automotive              | Body Shop                     | Manufacturing and Warehousing | 4741 Central Way           | 94534      | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Vacant                           | Vacant                        | Manufacturing and Warehousing | 4739 Central Way           | 94534      | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Continental Auto Glass           | Auto Glass Install & Repair   | Manufacturing and Warehousing | 4737 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         |               |                            |  | 0.20  |                               |                                     |  |   | Metro II                         |                               | Manufacturing and Warehousing | 4733 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         | '0045300370   | 8897                       |  | 0.00  |                               |                                     | 1  |   | Anyone's Off-Road & Custom       | Body Shop                     | Manufacturing and Warehousing | 4733 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Al's Tile and Marble Fino        | Marble tile store             | Commercial Sales & Service    | 4733 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         |               |                            |  |   |                               |                                     |  |   | Room Express Furniture           | Furniture Store               | Manufacturing and Warehousing | 4731 Central Way           | 94534-1612 | Central Commercial Building                 | PO Box 966 Benicia                   | 94510         | Partial                        |       |
|                         | '0045300200   |                            | 148  | 0.00  |                               |                                     | 1  |   | Ponder Environmental Services    | Environmental Consulting Firm | Manufacturing and Warehousing | 125 Grobric CT             | 94534-1620 | Dieter & Michelle Folk                      | 7088 Pleasants Valley Road           | 95688-9010    | Partial                        |       |
|                         | '0045300290   |                            | 23550  | 0.54  |                               |                                     | 1  |   | California Marine Sports         | Water Sport Equipment Store   | Commercial Sales & Service    | 101 Grobric CT             | 94534-1673 | Earl Baca                                   | 3901 Serenity Hills Dr, Vacaville    | 95688         | Partial                        |       |
|                         | '0045300280   |                            | 11567  | 0.27  |                               |                                     |  |   |                                  | vacant land                   | Vacant Commercial Land        |                            |            | Earl Baca                                   | 3901 Serenity Hills Dr, Vacaville    | 95688         | Partial                        |       |
|                         | '0045300270   |                            | 42633  | 0.98  |                               |                                     |  |   |                                  | vacant land                   | Vacant Industrial Land        |                            |            | Ray & Dalia Shamieh                         | 1545 North Texas Street              | 94533         | Partial                        |       |
|                         | '0045300260   |                            | 4650   | 0.11  |                               |                                     |  |   | Statewide Safety & Signs Inc.    | Producers of Signs            | Manufacturing and Warehousing | 130 Grobric CT             | 94534      | Don & Tamara Nicholas                       | 6325 Mira Cielo, San Luis Obispo     | 93401         | Partial                        |       |
|                         | '0045310010   |                            | 76204  | 1.75  |                               |                                     | 1  |   | Pearson's Appliance & TV         | Appliance & TV store          | Commercial Sales & Service    | 4685 Central Way           | 94534-1610 | Pearson Family Trust                        | 4167 Oakwood Drive                   | 94534         | Partial                        |       |
|                         | '0045310430   |                            | 14042  | 0.32  |                               |                                     |  |   | leased commercial land           | vacant unit                   | Commercial Sales & Service    | 103 Commerce Court         |            | Gonsalves & Santucci Inc.                   | 5141 Commercial Circle, Concord      | 94520         | Partial                        |       |
|                         | '0045310420   | '0045310890                | 9196   | 0.21  |                               |                                     | 1  |   | Furniture Expo                   | Furniture Store               | Commercial Sales & Service    | 103 Commerce Court         | 94534      | Gonsalves & Santucci Inc.                   | 5141 Commercial Circle, Concord      | 94520         | Partial                        |       |





| Map                   | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building(s) to be displaced | # of Existing Residential Building(s) to be displaced | Name of Business                     | Use of Existing Building | Property Type                 | Displacement Address          | Zipcode            | Owner                         | Owner Address                                   | Owner Zipcode                                   | Full or Partial Take of Parcel | Notes   |         |
|-----------------------|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|--------------------------------------|--------------------------|-------------------------------|-------------------------------|--------------------|-------------------------------|---|---|--------------------------------|---------|---------|
|                       | *0045310380   |                            | 21251  | 0.49  |                               |                                     |  |   | Frellen's Casual & Outdoor Furniture | Furniture Store          | Commercial Sales & Service    | 103 Commerce Court            | 94534              | Gonsalves & Santucci Inc.     | 5141 Commercial Circle, Concord                 | 94520   | Partial                        |         |         |
|                       | *0045310390   |                            | 1178   | 0.03  |                               |                                     |  |   |                                      | vacant land              | Commercial Sales & Service    | 103 Commerce Court            | 94534              | Gonsalves & Santucci Inc.     | 5141 Commercial Circle, Concord                 | 94520   | Partial                        |         |         |
|                       | *0045310400   |                            | 2905   | 0.07  |                               |                                     |  |   |                                      | vacant land              | Government                    |                               |                    | Fairfield City                | 1000 Webster Street, 3rd Floor                  | 94533   | Partial                        |         |         |
|                       | *0045310550   |                            | 1551   | 0.04  |                               |                                     |  |   | Golf Shop                            | Golf equipment           | Commercial Sales & Service    | 104 Commerce CT               |                    | Vasco Development             | 50 Crestview Drive, Orinda                      | 94563   | Partial                        |         |         |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Campways                             | Camping equipment        | Commercial Sales & Service    | 104 Commerce CT               | 94534-1781         | Vasco Development             | 50 Crestview Drive, Orinda                      | 94563   | Partial                        |         |         |
|                       | *0045310180   |                            | 59578  | 1.37  |                               |                                     |  |   |                                      |                          | Commercial Sales & Service    | 4670 Central Way              | 94534-1809         | B&L Properties II LLC         | 977 Dobbins Street, Vacaville, CA               | 95688   | Partial                        |         |         |
|                       | *0045310650   | *0045310890                | 79556  | 1.83  |                               |                                     |  |   |                                      |                          | Commercial Sales & Service    | 4670 Central Way              | 94534-1809         | B&L Properties II LLC         | 977 Dobbins Street, Vacaville, CA               | 95688   | Partial                        |         |         |
|                       | *0045310660   |                            | 118088   | 2.71  |                               |                                     |  |   |                                      |                          | Commercial Sales & Service    | 4560 Central Way              | 94534-1609         | Maurice Epps                  | 8 Willotta Drive                                | 94534   | Partial                        |         |         |
|                       | *0045310600   |                            | 43   | 0.00  |                               |                                     |  |   |                                      |                          | Vacant Commercial Land        |                               |                    | Edith Huey-Chu Hsieh          | 2536 Cerro Vista Lane                           | 94507   | Partial                        |         |         |
|                       | *0045310560   |                            | 4560   | 0.10  |                               |                                     |  |   |                                      |                          | Vacant Commercial Land        |                               |                    | Fairfield City                | 1000 Webster Street, 3rd Floor                  | 94533   | Partial                        |         |         |
|                       | *0045310870   |                            | 22889  | 0.53  |                               |                                     |  |   |                                      |                          | Vacant Commercial Land        |                               |                    | JSR Enterprises               | 4106 Fall Creek CT                              | 94534   | Partial                        |         |         |
|                       | *0045310860   |                            | 70542  | 1.62  |                               |                                     | 2  |   | Jack in the Box                      | Fast Food Restaurant     | Commercial Sales & Service    | 4490 Central Way              | 94534-1609         | JSR Enterprises               | 4106 Fall Creek CT                              | 94534   | Partial                        |         |         |
|                       |               |                            |  | 0.00  |                               |                                     |  |   | Chevron Gad Station                  | Gas/Service Station      | Service Station               | 4490 Central Way              | 94534-1609         | JSR Enterprises               | 4106 Fall Creek CT                              | 94534   | Partial                        |         |         |
|                       | *0045310580   |                            | 6405   | 0.15  |                               |                                     |  |   |                                      |                          |                               |                               |                    | Origone & Origone             | 5261 N Highway 99, Stockton, CA                 | 95212   |                                |         |         |
|                       | *0045310850   | *0045310850                | 21634  | 0.50  |                               |                                     | 1  |   | Starbucks                            | Coffee/Food              | Commercial Sales & Service    | 4470 Central Way              | 94534-1805         | Origone & Origone             | 5261 N Highway 99, Stockton, CA                 | 95212   | Full                           |         |         |
|                       | *0045310120   |                            | 6745   | 0.15  |                               |                                     |  |   |                                      |                          | Service Station               | 4450 Central Way              | 94534-1609         | World Oil Management Co.      | PO Box 2099 Houston TX                          | 77252   | Partial                        |         |         |
|                       | *0045340180   |                            | 3933   | 0.09  |                               |                                     |  |   |                                      |                          | Service Station               | 134 Pittman Road              | 94534-1654         | Clover Trust 1997-1           | PO Box 59365 Schaumburg, IL                     | 60159-0365                                      | Partial                        |         |         |
|                       | *0045340500   |                            | 3186   | 0.07  |                               |                                     |  |   |                                      |                          | Commercial Sales & Service    | 190 Pittman Road              | 94534-1654         | Worthing Ford Buxton          | 3700 Mt. Diablo Boulevard, Lafayette            | 94549   | Partial                        |         |         |
|                       | *0045340320   |                            | 13610  | 0.31  |                               |                                     | parking lot  |   |                                      |                          | Commercial Sales & Service    | 4350 Central Place            | 94534-1605         | Fairfield CWI Associated Ltd. | PO Box 90018 Bowling Green, KY                  | 42102-9018                                      | Partial                        |         |         |
|                       | *0045340110   |                            | 9351   | 0.21  |                               |                                     | small portion of a mini-golf course                |   |                                      | Scandia Family Center    | Commercial Sales & Service    | 4300 central Way              | 94534              | Laura & Lee Jensen            | 1889 Altas Peak Road, Napa                      | 94558   | Partial                        |         |         |
|                       | *0027260120   |                            | 30039  | 0.69  |                               | 21.62                               | 941,767  |   |                                      |                          | Agricultural Land             |                               |                    |                               | Meredith Carter                                 | 4950 Gordon Valley Road                         | 94534                          |         | Partial |
|                       | *0028692400   |                            | 3204   | 0.07  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | California State                                | Department of Transportation D Street, Stockton | 95201                          |         | Full    |
|                       | *0028692420   |                            | 43657  | 1.00  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | California State                                | Department of Transportation D Street, Stockton | 95201                          |         | Full    |
|                       | *0028792120   |                            | 20368  | 0.47  |                               |                                     |  |   |                                      |                          |                               | Manufacturing and Warehousing | 2102 Courage Drive | 94533-6719                    | John Howard Luttgens                            | PO Box 891870 Temecula                          | 92589                          |         | Partial |
|                       | *0031301440   |                            | 23326  | 0.54  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | California State                                | Department of Transportation D Street, Stockton | 95201                          |         | Partial |
|                       | *0032010170   |                            | 80613  | 1.85  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | Fairfield Redevelopment Agency                  | 1000 Webster Street                             | 94533                          |         | Partial |
|                       | *0032010190   |                            | 74512  | 1.71  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | Fairfield Redevelopment Agency                  | 1000 Webster Street                             | 94533                          |         | Partial |
|                       | *0032010320   |                            | 48736  | 1.12  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | California State                                | Department of Transportation D Street, Stockton | 95201                          |         | Partial |
|                       | *0032010300   |                            | 50498  | 1.16  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | California State                                | Department of Transportation D Street, Stockton | 95201                          |         | Partial |
|                       | *0032010470   |                            | 74874  | 1.72  |                               |                                     |  |   |                                      |                          |                               | Vacant Industrial Land        |                    |                               | Meyer Cookware Industries Inc.                  | 1 Meyer Place, Vallejo                          | 94590                          |         | Partial |
|                       | *0032010140   |                            | 139788   | 3.21  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | Fairfield City                                  | 1000 Webster Street, 3rd Floor                  | 94533                          |         | Partial |
|                       | *0032010280   |                            | 9400   | 0.22  |                               |                                     |  |   |                                      |                          | vacant land                   | Government                    |                    |                               | California State                                | Department of Transportation D Street, Stockton | 95201                          |         | Partial |
| Alternative B - Map 5 | *0046050180   |                            | 546440   | 12.54   | 157.61                        | 6,865,491                           |  |   |                                      |                          | Agricultural Land             | 3360 Ramsey Road              |                    | Seecon Financial & Const. Co. | 4021 Port Chicago Highway, Concord              | 94524   | Partial                        |         |         |
|                       | *0180070070   |                            | 54284  | 1.25  |                               |                                     |  |   |                                      | vacant land              | Government                    |                               |                    | Fairfield City                | 1000 Webster Street, 3rd Floor                  | 94533   | Partial                        |         |         |
|                       | *0180070060   |                            | 60998  | 1.40  |                               |                                     |  |   |                                      |                          | Vacant SFR Land               |                               |                    | Albert D Seeno Const. Co.     | 4021 Port Chicago Highway, Concord              | 94520   | Partial                        |         |         |
|                       | *0180160010   |                            | 70486  | 1.62  |                               |                                     |  |   |                                      | vacant land              | Government                    |                               |                    | Fairfield City                | 1000 Webster Street, 3rd Floor                  | 94533   | Partial                        |         |         |
|                       | *0180160020   |                            | 274635   | 6.30  |                               |                                     |  |   |                                      |                          | Vacant SFR Land               |                               |                    | Albert D Seeno Const. Co.     | 4021 Port Chicago Highway, Concord              | 94520   | Partial                        |         |         |
|                       | *0045090120   |                            | 21025  | 0.48  |                               |                                     |  |   |                                      |                          | Vacant SFR Land               | 2091 Cordelia Road            |                    | 2097 & 2121 Cordelia Road LLC | 4384 Edinburg CT                                | 94534-9454                                      | Partial                        |         |         |
|                       | *0045090260   |                            | 23366  | 0.54  |                               |                                     |  |   |                                      |                          | Vacant SFR Land               |                               |                    | Michael D and Anita O'Brien   | 1908 Vintage Lane                               | 94534   | Partial                        |         |         |
|                       | *0045081320   |                            | 29930  | 0.69  |                               |                                     |  |   |                                      |                          | Manufacturing and Warehousing | 5090 Central Way              |                    | Michael D and Anita O'Brien   | 1908 Vintage Lane                               | 94534   | Partial                        |         |         |
|                       | *01180110090  |                            |  | 0.00  |                               |                                     |  |   | Sierra Truck & Van                   | Body Shop                | Manufacturing and Warehousing | 225 Lopes Way                 | 94534              |                               |   |   |                                | Partial |         |
|                       | *0045300010   | *0045300380                | 8247   | 0.19  |                               |                                     |  |   |                                      |                          |                               |                               |                    |                               | James & Cheryl Campi                            | 4334 Rock Lane                                  | 94533                          | Partial |         |
| Alternative B - Map 6 | *0028750130   |                            | 14949  | 0.34  |                               |                                     |  |   |                                      |                          | Manufacturing and Warehousing | 1 Jelly Belly Lane            | 94533-6722         | Herman Rowland                | 1 Jelly Belly Lane                              | 94533-6741                                      | Partial                        |         |         |
|                       | *0028750310   |                            | 15407  | 0.35  |                               |                                     |  |   |                                      |                          | Vacant Industrial Land        |                               |                    | Philip Garrett                | 3428 Ettie Street, Oakland                      | 94608   | Partial                        |         |         |
|                       | *0028792140   |                            | 7837   | 0.18  |                               |                                     |  |   |                                      |                          | Manufacturing and Warehousing | 2300 North Watney Way         | 94533-6720         | Thomas & Susan Chipman        | 1040 Marina Village Pkwy, Alameda               | 94501   | Partial                        |         |         |
|                       | *0028792100   |                            | 14126  | 0.32  |                               |                                     |  |   |                                      |                          | Vacant Industrial Land        |                               |                    | Thomas & Susan Chipman        | 1040 Marina Village Pkwy, Alameda               | 94501   | Partial                        |         |         |
|                       | *0028792110   |                            | 9633   | 0.22  |                               |                                     |  |   |                                      |                          | Vacant Industrial Land        |                               |                    | DGP Associates                | 30977 San Antonio Road, Hayward                 | 94544   | Partial                        |         |         |
|                       | *0028792130   |                            | 658  | 0.02  |                               |                                     |  |   |                                      |                          | Vacant Industrial Land        | 2100 Courage Drive            |                    | DGP Associates                | 30977 San Antonio Road, Hayward                 | 94544   | Partial                        |         |         |
|                       | *0028792120   |                            | 20368  | 0.47  |                               |                                     |  |   |                                      |                          | Manufacturing and Warehousing | 2102 Courage Drive            |                    | John Howard Luttgens          | PO Box 891870 Temecula                          | 92589   | Partial                        |         |         |
|                       | *0028692400   |                            | 3204   | 0.07  |                               |                                     |  |   |                                      | vacant land              | Government                    |                               |                    | California State              | Department of Transportation D Street, Stockton | 95201   | Full                           |         |         |



| Map | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building(s) to be displaced | # of Existing Residential Building(s) to be displaced | Name of Business                      | Use of Existing Building     | Property Type                 | Displacement Address       | Zipcode | Owner                                | Owner Address                                   | Owner Zipcode | Full or Partial Take of Parcel | Notes                              |
|-----|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|---------------------------------------|------------------------------|-------------------------------|----------------------------|---------|--------------------------------------|---|---------------|--------------------------------|------------------------------------|
|     | '0028692420   |                            | 43657  | 1.00  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | California State                     | Department of Transportation D Street, Stockton | 95201         | Full                           |                                    |
|     | '0031301440   |                            | 23326  | 0.54  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | California State                     | Department of Transportation D Street, Stockton | 95201         | Partial                        |                                    |
|     | '0031170340   |                            | 2766   | 0.06  |                               |                                     |  |   |                                       |                              | Improved Multiple Residential | 201 Pennsylvania Avenue    |         | Fairfield Park Apartments            | 414 East Chapman Avenue, Orange                 | 92866         | Partial                        |                                    |
|     | '0032010400   |                            | 16619  | 0.38  |                               |                                     |  |   |                                       |                              | Manufacturing and Warehousing | 2001 Meyer Way             |         | Meyer Cookware Industries Inc.       | 1 Meyer Place, Vallejo                          | 94590         | Partial                        |                                    |
|     | '0032010410   |                            | 13848  | 0.32  |                               |                                     |  |   |                                       |                              | Manufacturing and Warehousing | 2001 Meyer Way             |         | Meyer Cookware Industries Inc.       | 1 Meyer Place, Vallejo                          | 94590         | Partial                        |                                    |
|     | '0032010420   |                            | 7561   | 0.17  |                               |                                     |  |   |                                       |                              | Vacant Industrial Land        |                            |         | Meyer Cookware Industries Inc.       | 1 Meyer Place, Vallejo                          | 94590         | Partial                        |                                    |
|     | '0032010470   |                            | 95573  | 2.19  |                               |                                     |  |   |                                       |                              | Vacant Industrial Land        |                            |         | Meyer Cookware Industries Inc.       | 1 Meyer Place, Vallejo                          | 94590         | Partial                        |                                    |
|     | '0032010460   |                            | 35487  | 0.81  |                               |                                     |  |   |                                       |                              | Vacant Industrial Land        |                            |         | Meyer Cookware Industries Inc.       | 1 Meyer Place, Vallejo                          | 94590         | Partial                        |                                    |
|     | '0032010440   |                            | 110494   | 2.54  |                               |                                     |  |   |                                       |                              | Vacant Industrial Land        |                            |         | Meyer Cookware Industries Inc.       | 1 Meyer Place, Vallejo                          | 94590         | Full                           |                                    |
|     | '0032010350   |                            | 13124  | 0.30  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | SAC & San Joaquin Drain Distribution | 1416 Ninth Street RM 431 Sacramento             | 95814         | Partial                        |                                    |
|     | '0032010140   |                            | 205945   | 4.73  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | Fairfield city                       | 1000 Webster Street, 3rd Floor                  | 94533         | Partial                        |                                    |
|     | '0032010170   |                            | 80613  | 1.85  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | Fairfield Redevelopment Agency       | 1000 Webster Street                             | 94533         | Full                           |                                    |
|     | '0032010320   |                            | 48736  | 1.12  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | California State                     | Department of Transportation D Street, Stockton | 95201         | Partial                        |                                    |
|     | '0032010190   |                            | 74512  | 1.71  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | Fairfield Redevelopment Agency       | 1000 Webster Street                             | 94533         | Full                           |                                    |
|     | '0032010300   |                            | 50498  | 1.16  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | California State                     | Department of Transportation D Street, Stockton | 95201         | Partial                        |                                    |
|     | '0032010280   |                            | 9400   | 0.22  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | California State                     | Department of Transportation D Street, Stockton | 95201         | Partial                        |                                    |
|     | '0032010390   |                            | 1021279  | 23.45   | 65                            | 2,831,400                           |  |   |                                       |                              | Agricultural Land             |                            |         | Tom Gentry California Co.            | PO Box 295, Honolulu                            | 96809         | Partial                        |                                    |
|     | '0032010230   |                            | 584356   | 13.41   |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | Fairfield Redevelopment Agency       | 1000 Webster Street                             | 94533         | Partial                        |                                    |
|     | '0032020100   |                            | 101529   | 2.33  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | Tom Gentry California Co.            | PO Box 295, Honolulu                            | 96809         | Partial                        |                                    |
|     | '0032020040   |                            | 142980   | 3.28  | 5                             | 217,800                             |  |   |                                       |                              | Agricultural Land             |                            |         | Gregory Gilbert                      | 8776 Killdee CT, Orangevale                     | 95662         | Partial                        |                                    |
|     | '0032020140   |                            | 437913   | 10.05   | 21.51                         | 936,976                             |  |   |                                       |                              | Agricultural Land             |                            |         | Tom Gentry California Co.            | PO Box 295, Honolulu                            | 96809         | Partial                        |                                    |
|     | '0032020160   |                            | 83285  | 1.91  | 4.54                          | 197,762                             |  |   |                                       |                              | Agricultural Land             |                            |         | Tom Gentry California Co.            | PO Box 295, Honolulu                            | 96809         | Partial                        |                                    |
|     | '0023020260   |                            | 7081   | 0.16  |                               |                                     |  |   |                                       |                              | Vacant Industrial Land        |                            |         | Penske Truck Leasing Co.             | Route 10 and Pheasant Road, PA                  | 19603         | Partial                        |                                    |
|     | '0032020290   |                            | 29281  | 0.67  |                               |                                     |  |   |                                       |                              | Vacant Industrial Land        |                            |         | Solano Bay Tow Inc.                  | 413 Chyrl Way, Suisun City                      | 94585         | Partial                        |                                    |
|     | '0032020250   |                            | 424739   | 9.75  |                               |                                     |  |   |                                       | vacant land                  | Government                    | off of Pennsylvania Avenue |         | Penske Truck Leasing Co.             | Route 10 and Pheasant Road, PA                  | 19603         | Partial                        |                                    |
|     | '0032111010   |                            | 2266   | 0.05  |                               |                                     |  |   |                                       | vacant land                  | Government                    |                            |         | Suisun City                          | 701 Suisun Street                               | 94585         | Partial                        |                                    |
|     | '00321113130  |                            | 1848   | 0.04  |                               |                                     |  |   | Residential House *Possibly 50+ years | House                        | Improved SFR Properties       | 200 Solano Street          |         | Rodney Mullin                        | 200 Solano Street, Suisun City                  | 94585         | Partial                        |                                    |
|     | '0032113010   |                            | 1160   | 0.03  |                               |                                     |  |   | Junk Yard                             | junk yard                    | Commercial Sales & Service    | 201 Sacramento Street      |         | Pensco Trust Company Custodian       | 2067 Mt. Diablo Boulevard, Walnut Creek         | 94596         | Partial                        |                                    |
|     | '0032081310   |                            | 1287   | 0.03  |                               |                                     | 1  |   | Suisun Roofing Supply                 | Roofing Tiles                | Manufacturing and Warehousing | 260 Benton CT              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     | '0032081060   |                            | 9293   | 0.21  |                               |                                     | 1  |   | Suisun Roofing Supply                 | Roofing Tiles                | Manufacturing and Warehousing | 263 Benton CT              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     | '0032081050   |                            | 8650   | 0.20  |                               |                                     |  |   | Roofing Tile Yard                     | tile yard                    | Vacant Industrial Land        | 257 Benton CT              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     | '0032081030   |                            | 9176   | 0.21  |                               |                                     | 1  |   | Unknown                               | Possible Body Shop           | Manufacturing and Warehousing | 241 Benton CT              |         | Dana Fennie                          | 508 Cottonwood Drive                            | 94533         | Partial                        |                                    |
|     | '0032081020   |                            | 8975   | 0.21  |                               |                                     |  |   | Hi-Tech Auto Service                  | Body Shop                    | Commercial Sales & Service    | 237 Benton CT              |         | Kishore Sarup                        | 237 Benton CT, Suisun City                      | 94585         | Partial                        |                                    |
|     | '0032052210   |                            | 14229  | 0.33  |                               |                                     | 1  |   | The Hitman                            | Termite & Pest Control       | Commercial Sales & Service    | 229 Benton Ct              |         | Kishore Sarup                        | 237 Benton CT, Suisun City                      | 94585         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Clear Image                           | Signs                        | Commercial Sales & Service    | 227 Benton Ct              |         | Kishore Sarup                        | 237 Benton CT, Suisun City                      | 94585         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   |                                       |                              | Commercial Sales & Service    | 225 Benton Ct              |         | Kishore Sarup                        | 237 Benton CT, Suisun City                      | 94585         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Marine Industrial Fire Safety         | Marine Fire Safety Equipment | Commercial Sales & Service    | 223 Benton Ct              |         | Kishore Sarup                        | 237 Benton CT, Suisun City                      | 94585         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Castle Rock Construction              | Construction Company         | Manufacturing and Warehousing | 221 Benton CT              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     | '0032052100   |                            | 4146   | 0.10  |                               |                                     | 1  |   | Xtreme Cyclez                         | Bicycle/Motorcycle Store     | Commercial Sales & Service    | 215 Benton Ct              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   |                                       |                              | Commercial Sales & Service    | 213 Benton Ct              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Rich Campbell                         | General Engineering          | Commercial Sales & Service    | 211 Benton ct              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   |                                       | vacant land                  | Commercial Sales & Service    | 209 Benton Ct              |         | Engell Brothers                      | PO Box GG Fairfield                             | 94533         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Iron Riders Inc.                      | Body Shop                    | Commercial Sales & Service    | 207 Benton CT              |         | Kurt Cronauer                        | 1295 Horizon Drive                              | 94533         | Partial                        |                                    |
|     | '0032052090   |                            | 1565   | 0.04  |                               |                                     |  |   | Kyron's Body Shop                     | Body Shop                    | Commercial Sales & Service    | 205 Benton CT              |         | Kurt Cronauer                        | 1295 Horizon Drive                              | 94533         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Tweed Hut                             | Recording Studio             | Commercial Sales & Service    | 201 Benton CT              |         | Kurt Cronauer                        | 1295 Horizon Drive                              | 94533         | Partial                        |                                    |
|     | '0032052120   |                            | 1914   | 0.04  |                               |                                     | 1  |   | Tidy Tails                            | Pet Grooming Facility        | Commercial Sales & Service    | 305 Spring Street          |         | Kathryn Shamieh                      | 1004 Spinnaker CT, Suisun City                  | 94585         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Oasaka Massage                        | Massage Services             | Commercial Sales & Service    | 311 Spring Street          |         | Kathryn Shamieh                      | 1004 Spinnaker CT, Suisun City                  | 94585         | Partial                        |                                    |
|     |               |                            |  | 0.00  |                               |                                     |  |   | Good Life Health Spa                  | Spa                          | Commercial Sales & Service    | 313 Spring Street          |         | Kathryn Shamieh                      | 1004 Spinnaker CT, Suisun City                  | 94585         | Partial                        |                                    |
|     | '0032020240   |                            | 99489  | 2.28  |                               |                                     |  |   | Railway Tracks                        | vacant land                  | Government                    |                            |         | Suisun Redevelopment Agency          | 701 civic Center Boulevard, Suisun              | 94585         | Partial                        | Railway Tracks (part of Caltrain?) |





Alternative C and Alternative C-1 Existing Development

| Map                     | Parcel Number       | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building's) to be displaced | # of Existing Residential Building's) to be displaced | Name of Business                       | Use of Existing Building                   | Property Type                 | Displacement Address                             | Zip code   | Owner   | Owner Address                              | Owner Zip code    | Full or Partial Take of Parcel | Notes                          |
|-------------------------|---------------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|--|--|-------------------------------|--|------------|---|--|-------------------|--------------------------------|--------------------------------|
| Alternative C-1 - Map 1 | '0046050180         |                            | 515369   | 11.83   | 157.61                        | 6,865,491                           |  |   |  |  | Agricultural Land             | 3360 Ramsey Road                                 |            | Seecon financial & Const Co.                  | 4021 Port Chicago Highway, Concord         | 94524             | Partial                        |                                |
|                         | '0180070070         |                            | 53741  | 1.23  |                               |                                     |  |   |  | vacant land                                | Government                    |  |            | Fairfield City                                | 1000 Webster Street                        | 94533             | Partial                        |                                |
|                         | '0180070060         |                            | 80126  | 1.84  |                               |                                     |  |   |  |  | Vacant SFR Land               |  |            | Alberto Seeno Const. Co.                      | 4021 Port Chicago Highway, Concord         | 94520             | Partial                        |                                |
|                         | '0180160010         |                            | 72547  | 1.67  |                               |                                     |  |   |  | vacant land                                | Government                    |  |            | Ricci & Michelle Armijo                       | 233 Eucalyptus Drive, American Canyon      | 94503             | Full                           |                                |
|                         | '0180160020         |                            | 288948   | 6.63  |                               |                                     |  |   |  |  | Vacant                        |  |            | Alberto Seeno Const. Co.                      | 4021 Port Chicago Highway, Concord         | 94520             | Partial                        |                                |
|                         | '0180160220         |                            | 900177   | 20.67   |                               |                                     |  |   |  |  | Vacant Industrial Land        |  |            | West Coast Home Builders Inc.                 | 4021 Port Chicago Highway, Concord         | 94524             | Partial                        |                                |
|                         | '0180160210         |                            | 24998  | 0.57  |                               |                                     |  |   |  |  | Miscellaneous                 | 5000 Red Top Road                                | 94534-9527 | Fairfield-Suisun Unified School district      | 1975 Pennsylvania Street                   | 94533             | Partial                        |                                |
|                         | No Data             |                            | 66570  | 1.53  |                               |                                     |  |   |  |  |                               |  |            |   |  |                   | Partial                        | No parcel number, part of road |
| Alternative C - Map 2   | '0180160070         |                            | 167710   | 3.85  |                               |                                     |  |   |  |  | Manufacturing and Warehousing |  |            | West Coast Home Builders Inc.                 | 4021 Port Chicago Highway, Concord         | 94524             | Partial                        |                                |
|                         | No Data             |                            | 14595  | 0.34  |                               |                                     |  |   |  |  |                               |  |            |   |  |                   | Partial                        |                                |
|                         | No Data             |                            | 10903  | 0.25  |                               |                                     |  |   |  |  |                               |  |            |   |  |                   | Partial                        |                                |
|                         | '0180160200         |                            | 25406  | 0.58  |                               |                                     |  |   |  |  | Manufacturing and Warehousing | 5191 Fermi Drive                                 | 94534-1607 | Panattoni Investments LLC                     | 8401 Jackson Road, Sacramento              | 95826             | Partial                        |                                |
|                         | '0180130110         |                            | 90429  | 2.08  |                               |                                     |  |   |  |  | Vacant Industrial Land        | 490 Edison CT                                    | 94534-1636 | Yelton Properties                             | PO Box 2360, Vacaville                     | 95696             | Partial                        |                                |
|                         | '0180130100         |                            | 14930  | 0.34  |                               |                                     |  |   |  | vacant land                                | Government                    |  |            | Fairfield City                                | 1000 Webster Street                        | 94533             | Partial                        |                                |
|                         | '0180130090         | 41554                      |  | 0.95  |                               |                                     | 1  |   | UMA Solar                              | Solar technology                           | Commercial Sales & Service    | 499A Edison CT                                   | 94534-1698 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Formaggi Di Ferrante                   | Cheese producers                           | Commercial Sales & Service    | 499A2 Edison CT                                  | 94534-1698 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | The Picture Company                    | Producers of Wooden Picture Frames         | Manufacturing and Warehousing | 499B Edison CT                                   | 94534-1698 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | California Imaging                     | Medical Imaging Equipment, Sales & Service | Commercial Sales & Service    | 499C Edison CT                                   | 94534-1698 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Vacant Unit                            | vacant land                                | Manufacturing and Warehousing | 499D Edison CT                                   | 94534-1698 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         | '0180130080         | 73383                      |  | 1.68  |                               |                                     | 1  |   | Vacant Unit                            | vacant land                                | Manufacturing and Warehousing | 495A Edison CT                                   | 94534-1683 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Vacant Unit                            | vacant land                                | Manufacturing and Warehousing | 495D Edison Court                                | 94534-1683 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | SDH Enterprises                        | Linen Manufacturer                         | Manufacturing and Warehousing | 495C Edison Court                                | 94534-1683 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | SDH Enterprises                        | Linen Manufacturer                         | Manufacturing and Warehousing | 495 B Edison Court                               | 94534-1683 | Edison Industrial 1 LLC                       | 500 Washington Street, San Francisco       | 94111             | Partial                        |                                |
|                         |                     |                            |  | 1.21  |                               |                                     |  |   | Fire Department                        | Fire Hall                                  | Government                    | 473 Edison CT                                    | 94534-1636 | Patricia Bosco                                | 10085 Lake Edge CT, Truckee                | 96161             | Partial                        |                                |
|                         | '0180130070         | 52709                      |  | 0.00  |                               |                                     | 1  |   | O' Hara Metal                          | Metal factory                              | Manufacturing and Warehousing | 473 Edison CT                                    | 94534-1636 | Patricia Bosco                                | 10085 Lake Edge CT, Truckee                | 96161             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Clothes Recycle Center                 | Charity Drop off/distribution center       | Commercial Sales & Service    | 5005 Fulton Drive                                | 94534      |   |  |                   | Partial                        |                                |
|                         |                     |                            |  | 1.85  |                               |                                     |  |   | Valley Rubber & Gasket                 |  | Manufacturing and Warehousing | 5045 Fulton Drive                                | 94534-1635 | Maria Lasher                                  | PO Box 155 Alamo                           | 94507             | Partial                        |                                |
|                         | '0180130050         | 80748                      |  | 0.00  |                               |                                     | 1  |   | Family Celebration Center              | Religious Center                           | Religious Facility            | 5045 Fulton Drive                                | 94534-1635 | Maria Lasher                                  | PO Box 155 Alamo                           | 94507             | Partial                        |                                |
|                         |                     |                            |  | 1.00  |                               |                                     |  |   | Marin Medical                          |  | Commercial Sales & Service    | 497A Edison CT                                   | 94534-1636 | Ronals Halterman                              | 7205 Santa Ysabel, Atascadero              | 93422             | Partial                        |                                |
|                         | '0180030060         | 43396                      |  | 0.00  |                               |                                     | 1  |   | Don's Transport/Liquid Trends Northbay | Transport Service                          | Commercial Sales & Service    | 497B Edison Court                                | 94534-1636 | Ronals Halterman                              | 7205 Santa Ysabel, Atascadero              | 93422             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Brewer Metal Products                  | Brewing Products                           | Commercial Sales & Service    | 497C Edison Court                                | 94534-1636 | Ronals Halterman                              | 7205 Santa Ysabel, Atascadero              | 93422             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Super Store Industries                 | Dairy Product Manufacturer and Suppliers   | Manufacturing and Warehousing | 497D & E Edison Court                            | 94534-1636 | Ronals Halterman                              | 7205 Santa Ysabel, Atascadero              | 93422             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Euro-Machines                          | vineyard & winery equipment                | Manufacturing and Warehousing | 497F & G Edison Court                            | 94534-1636 | Ronals Halterman                              | 7205 Santa Ysabel, Atascadero              | 93422             | Partial                        |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   |  |  |                               |  |            |   |  |                   |                                |                                |
|                         | '0180140190         |                            | 163172   | 3.75  |                               |                                     |  |   | Comcast                                | Internet Company                           | Commercial Sales & Service    | 5133 Fulton Drive                                |            | Scannell Properties #90 LLC                   | 800 East Ninety-Sixth Street, Indianapolis | 46240             | Partial                        |                                |
|                         | '0180140180         |                            | 64325  | 1.48  |                               |                                     | 1  |   | Woodline Cabinets                      | Wood Cabinet producer                      | Manufacturing and Warehousing | 5165 Fulton Drive                                | 94534-1638 | Paul & Terri McKay                            | 5165 Fulton Drive                          | 94534             | Partial                        |                                |
|                         | '0180140020         |                            | 12898  | 0.30  |                               |                                     |  |   |  | vacant land                                | Vacant Industrial Land        | 5130 Fulton Drive                                |            | Fulton Drive Commercial LLC                   | 12885 Alcosta Boulevard, San Ramon         | 94583             | Partial                        |                                |
|                         | '0180140030         |                            | 86100  | 1.98  |                               |                                     | 1  |   | Pacific Coast Steel                    | Steel Company                              | Manufacturing and Warehousing | 5160 Fulton Drive                                | 94534-1639 | Eric Benson                                   | 7155 Mission Gorge Road, San Diego         | 92120             | Partial                        | No area                        |
|                         | '0180140040         | 93047                      |  | 2.14  |                               |                                     | 1  |   | Beutter Corp.                          |  | Manufacturing and Warehousing | 5170 Fulton Drive                                | 94534-4221 | Steven Scherner                               | 167 Camino Dorado, Napa`                   | 94559             | Full                           |                                |
|                         |                     |                            |  | 0.00  |                               |                                     |  |   | Ciesco                                 |  | Manufacturing and Warehousing | 5170 Fulton Drive                                | 94534-4221 | Steven Scherner                               | 167 Camino Dorado, Napa`                   | 94559             | Full                           |                                |
|                         | '0180140050         |                            | 66257  | 1.52  |                               |                                     |  |   |  |  | Vacant Industrial Land        |  |            | Steven Scherner                               | 167 Camino Dorado, Napa`                   | 94559             | Full                           |                                |
|                         | '0180140060         |                            | 87304  | 2.00  |                               |                                     | 1  |   | No Name                                |  | Manufacturing and Warehousing | 355 Watt Drive                                   | 94534-4207 | Watt Four LLC                                 | 355 Watt Drive                             | 94534             | Partial                        |                                |
|                         | '0180140290         |                            |  | 2.09  |                               |                                     | 4  |   | Cal Ceramics/Tom Duffy                 | ceramic tile & stone manufacturers         | Manufacturing and Warehousing | 5200 Watt ct                                     | 94534-4209 | Carlsen Investments LLC                       | PO Box 4900, Scottsdale, AZ                | 85261-4900        | Partial                        |                                |
|                         | '0180160180         |                            | 20499  | 0.47  |                               |                                     |  |   |  |  |                               |  |            | Alberto Seeno Const. Co.                      | 4021 Port Chicago Highway, Concord         | 94520             | Partial                        |                                |
|                         | '0180010090         |                            | 8764   | 0.20  |                               |                                     |  |   |  | vacant land                                | Vacant Industrial Land        |  |            | Fairfield City                                | 1000 Webster Street                        | 94533             | Partial                        |                                |
|                         | '0180010080         |                            | 12150  | 0.28  |                               |                                     |  |   | Jack in the Box                        | Fast Food Restaurant                       | Commercial Sales & Service    | 107 Red Top Road                                 | 94534-9500 | Vistoria Land Partners LP                     | 3655 Nobel Drive, San Diego                | 92122             | Partial                        |                                |
|                         | '0180010070         |                            | 11948  | 0.27  |                               |                                     |  |   | Circle K                               | Gas Station                                | Service Station               | 119 Red Top Road                                 | 94534-9500 | Convenience Retailers LLC                     | PO Box 59365, Schaumburg, IL               | 60159-0365        | Partial                        |                                |
|                         | '0180010050         |                            | 31145  | 0.71  |                               |                                     | 2  |   | Sunnyside Farms                        | Produces Milk                              | Manufacturing and Warehousing | 199 Red Top Road                                 | 94534-9500 | Super Store Industries                        | PO Box 2898                                | 94533             | Partial                        |                                |
|                         | '0180010100         |                            | 956403   | 21.96   |                               |                                     |  |   | Thomas Casselbarry, Animal Hospital    | Veterinarian Clinic/Animal Hospital        | Commercial Sales & Service    | 117 Red Top Road                                 | 94534-9500 | Margaret Ferrari                              | 5987 Twin Sisters CT                       | 94585             | Partial                        |                                |
|                         | '0180010110         |                            | 3205   | 0.07  |                               |                                     |  |   |  |  | Vacant Commercial Land        |  |            | Margaret Ferrari                              | 5987 Twin Sisters CT                       | 94585             | Partial                        |                                |
|                         | <b>0180-110-023</b> |                            | <b>40000</b>                                   | <b>0.92</b>                                       |                               |                                     |  |   |  |  | <b>Vacant Commerical</b>      | <b>Corner of Lopes Road and Auto Plaza Court</b> |            | <b>Lands of Cordelia I-80 Properties, Inc</b> | <b>250 Dittmer Road, Farifield</b>         | <b>94534-1621</b> | <b>Partial</b>                 |                                |
|                         | '0148260050         |                            | 434564   | 9.98  | 44.04                         | 1,918,382                           |  |   |  |  | Range and Watershed           | 1646 State Highway 12                            |            | Louis & Yolanda Salem                         | 2321 big Ranch Road, Napa                  | 94558             | Partial                        |                                |
|                         | '0148260040         |                            | 22092  | 0.51  |                               |                                     |  |   |  | vacant land                                | Government                    | 1827 State Highway 12                            |            | Vallejo City                                  | 555 Santa Clara Street, Vallejo            | 94590             | Partial                        |                                |



| Map | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building's) to be displaced | # of Existing Residential Building's) to be displaced | Name of Business      | Use of Existing Building | Property Type                 | Displacement Address       | Zip code   | Owner                              | Owner Address                                     | Owner Zip code | Full or Partial Take of Parcel | Notes   |
|-----|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|-----------------------|--------------------------|-------------------------------|----------------------------|------------|------------------------------------|---|----------------|--------------------------------|---------|
|     | '0148260080   |                            | 598304   | 13.74   | 21.66                         | 943,510                             |  |   |                       |                          | Range and Watershed           |                            |            | Thomas Turner & Susan F            | 1687 Jameson Canyon Road                          | 94503          | Partial                        |         |
|     | '0148260090   |                            | 143303   | 3.29  |                               |                                     |  |   |                       |                          | Miscellaneous                 | 1687 Jameson Canyon Road   |            | Turner Thomas & Susan F            | 1687 Jameson Canyon Road                          | 94503          | Partial                        |         |
|     | '0148260010   |                            | 842519   | 19.34   | 256.1                         | 11,155,716                          |  |   |                       |                          |                               |                            |            | Gary Mangles & Mary K              | 2294 Morrison Lane                                | 94534          | Partial                        |         |
|     | '0148270240   |                            | 294457   | 6.76  |                               |                                     |  |   |                       |                          | Miscellaneous                 |                            |            | Robert Dittmer                     | 3539 Roberts Road                                 | 94534          | Partial                        |         |
|     | '0148270010   |                            | 169180   | 3.88  | 12.8                          | 557,568                             |  |   |                       |                          | Range and Watershed           |                            |            | Gary & Mary Mangels                | 2294 Morrison Lane                                | 94534          | Partial                        |         |
|     | '0148270340   |                            | 201253   | 4.62  | 42.23                         | 1,839,539                           |  |   |                       |                          | Range and Watershed           | 3537 Roberts Road          |            | Robert Dittmer                     | 3539 Roberts Road                                 | 94534          | Partial                        |         |
|     | '0148270060   |                            | 195838   | 4.50  | 5.99                          | 260,924                             |  |   |                       |                          | Agricultural Land             |                            |            | Robert Dittmer                     | 3539 Roberts Road                                 | 94534          | Partial                        |         |
|     | '0148270290   |                            | 523273   | 12.01   |                               |                                     |  |   |                       | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0148270300   |                            | 11202  | 0.26  |                               |                                     | 1  |   |                       |                          | Commercial Sales & Service    | 5125 Business Center Drive | 94534-1624 | Lee's Pet club Inc.                | 3535 Hollis Street, Emeryville                    | 94601          | Partial                        |         |
|     | '0148270310   |                            | 5394   | 0.12  |                               |                                     | 1  |   |                       |                          | Commercial Sales & Service    | 5121 Business Center Drive | 94534-1788 | Napa Tahoe Spec. Retail Dev.       | 717 Westholme Avenue, Los Angeles                 | 90024          | Partial                        |         |
|     | '0148270320   |                            | 11912  | 0.27  |                               |                                     | 1  |   |                       |                          | Commercial Sales & Service    | 5117 Business Center Drive | 94534-1624 | Napa Tahoe Spec. Retail Dev.       | 717 Westholme Avenue, Los Angeles                 | 90024          | Partial                        |         |
|     | '0148270330   |                            | No Data  |   |                               |                                     | 1  |   |                       |                          | Commercial Sales & Service    | 5113 Business Center Drive | 94534-1624 | Real Estate Association LLC.       | 633 East Victor Road, Lodi                        | 95240          | Partial                        | No area |
|     | '0148270170   |                            | 123  | 0.00  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 511 Business Center Drive  | 94534-1624 | Richard & Beverly Doyle            | 511 Business Center Drive                         | 94534          | Partial                        |         |
|     | '0180120080   |                            | 62223  | 1.43  |                               |                                     |  |   |                       |                          | Vacant Industrial Land        | 9321 West Cordelia Road    |            | Vision Integral properties LLC     | 9321 West Cordelia Road                           | 94534          | Full                           |         |
|     | '0180120070   |                            | 42645  | 0.98  |                               |                                     |  |   |                       |                          | Vacant Industrial Land        | 9321 West Cordelia Road    |            | Vision Integral properties LLC     | 9321 West Cordelia Road                           | 94534          | Partial                        |         |
|     | '0180120050   |                            | 6222   | 0.14  |                               |                                     |  |   |                       |                          | Manufacturing and Warehousing | 9324 West Cordelia Road    |            | Curtis & CC Beckwith               | 131 Hidden Glen CT, Vacaville                     | 95688          | Partial                        |         |
|     | '0180120060   |                            | 113247   | 2.60  |                               |                                     |  |   |                       |                          | Vacant Industrial Land        |                            |            | North Bay Properties LLC           | 250 Dittmer Road                                  | 94534          | Partial                        |         |
|     | '0180120010   |                            | 56545  | 1.30  |                               |                                     |  |   |                       |                          | Vacant Industrial Land        |                            |            | North Bay Properties LLC           | 250 Dittmer Road                                  | 94534          | Partial                        |         |
|     | '0180120050   |                            | 8878   | 0.20  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4865 Auto Plaza Court      |            | Simvest Real Estate Properties     | 655 Montgomery Street, ST 1190, San Francisco, CA | 94111          | Partial                        |         |
|     | '0180110050   | '0180110260                | 71018  | 1.63  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4865 Auto Plaza Court      |            | Simvest Real Estate Properties     | 655 Montgomery Street, ST 1190, San Francisco, CA | 94111          | Partial                        |         |
|     | '0045280440   |                            | 109434   | 2.51  |                               |                                     |  |   |                       | vacant land              | Government                    |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Full                           |         |
|     | '0045280010   |                            | 10257  | 0.24  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Full                           |         |
|     | '0045280060   |                            | 11883  | 0.27  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045880040   |                            | 5715   | 0.13  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045280050   | '0045280440                | 9818   | 0.23  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Full                           |         |
|     | '0045280160   |                            | 17320  | 0.40  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045250060   |                            | 9984   | 0.23  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Full                           |         |
|     | '0045280070   |                            | 2993   | 0.07  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0148280130   |                            | 21998  | 0.51  |                               |                                     |  |   |                       | vacant land              | Government                    | 3683 Green Valley Road     | 94534      | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0148280280   |                            | 4826   | 0.11  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 5041 Business Center       | 94534      | Watt/Fairfield Associates LP       | PO Box 131071, Carlsbad                           | 92013          | Partial                        |         |
|     | '0148280120   |                            | 9751   | 0.22  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield Redevelopment Agency     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0148280140   |                            | 3855   | 0.09  |                               |                                     |  |   |                       | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045310650   | '0045310890                | 21931  | 0.50  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4670 Central Way           | 94534-1809 | B&L Properties II LLC              | 97 Dobbins Street, Vacaville, CA                  | 95688          | Partial                        |         |
|     | '0045310660   |                            | 17358  | 0.40  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4560 Central Way           | 94534-1609 | Maurice Epps                       | 8 Willotta Drive                                  | 94534          | Partial                        |         |
|     | '0045310120   |                            | 10741  | 0.25  |                               |                                     |  |   |                       |                          | Service Station               | 4450 Central Way           | 94534-1609 | World Oil Management Co.           | PO Box 2099 Houston, TX                           | 77252          | Partial                        |         |
|     | '0045310850   | '0045310850                | 1037   | 0.02  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4470 Central Way           | 94534-1805 | Origone & Origone                  | 5261 North Highway 99, Stockton                   | 95212          | Partial                        |         |
|     | '0045310580   |                            | 3148   | 0.07  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4470 Central Way           | 94534-1805 | Origone & Origone                  | 5261 North Highway 99, Stockton                   | 95212          | Partial                        |         |
|     | '0045310860   |                            | 14631  | 0.34  |                               |                                     | 1  |   |                       |                          | Service Station               | 4490 Central Way           | 94534-1609 | JSR Enterprises                    | 4106 Fall Creek CT                                | 94534          | Partial                        |         |
|     | '0045310870   |                            | 2160   | 0.05  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        |                            |            | JSR Enterprises                    | 4106 Fall Creek CT                                | 94534          | Partial                        |         |
|     | '0045310560   |                            | 1488   | 0.03  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045280540   |                            | 18228  | 0.42  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        | 4725 Business Center Drive | 94534-1916 | Kaiser Foundation Health plan Inc. | ATTN: Tax and Insurance, Oakland                  | 94612          | Partial                        |         |
|     | '0045280550   |                            | 30575  | 0.70  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4665 Business Center Drive | 94534-1675 | Copart Inc.                        | 4665 Business Center Drive                        | 94534          | Partial                        |         |
|     | '0045280560   |                            | 13528  | 0.31  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        |                            |            | Copart Inc.                        | 4665 Business Center Drive                        | 94534          | Partial                        |         |
|     | '0045280570   |                            | 31396  | 0.72  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        |                            |            | Copart Inc.                        | 4665 Business Center Drive                        | 94534          | Partial                        |         |
|     | '0045280590   |                            | 146545   | 3.36  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        |                            |            | Green Valley Land LLC              | 4820 Business Center Drive                        | 94534          | Partial                        |         |
|     | '0045280490   |                            | 13838  | 0.32  |                               |                                     |  |   |                       | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045280530   |                            | 56739  | 1.30  |                               |                                     |  |   |                       | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency     | 1000 Webster Street                               | 94533          | Partial                        |         |
|     | '0045340180   |                            | 5529   | 0.13  |                               |                                     |  |   |                       |                          | Service Station               | 134 Pittman Road           | 94534-1654 | Clover Trust 1997-1                | PO Box 59635, Schaumber, IL                       | 60159-0365     | Partial                        |         |
|     | '0045340500   |                            | 4725   | 0.11  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 190 Pittman Road           | 94534-1654 | Worthington Ford Buxton            | 3700 MT Diablo Boulevard, Lafayette               | 94549          | Partial                        |         |
|     | '0045340310   |                            | 1102   | 0.03  |                               |                                     |  |   |                       |                          | Hotels and Motels             | 4376 Central Place         | 94534-1605 | Bawa Enterprises Inc.              | 12671 Garfield, Victorville                       | 92392          | Partial                        |         |
|     | '0045340320   |                            | 3632   | 0.08  |                               |                                     |  |   |                       |                          | Commercial Sales & Service    | 4350 Central Place         | 94534-1605 | Fairfield CW I Associated Ltd      | PO Box 90018, Bowling Green, KY                   | 42102-9018     | Partial                        |         |
|     | '0045340110   |                            | 22095  | 0.51  |                               |                                     | small portion of the mini-golf                     |   | Scandia Family Center |                          | Commercial Sales & Service    | 4300 Central Way           | 94534      | Laura-Lee Jensen                   | 1889 Altas Peak Road, Napa                        | 94558          | Partial                        |         |
|     | '0027260240   |                            | 10102  | 0.23  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        |                            |            | Garaventa FF Commons LLC           | 2540 Bates Avenue, Concord                        | 94520          | Partial                        |         |
|     | '0027340080   |                            | 155299   | 3.57  |                               |                                     |  |   |                       |                          | Vacant Commercial Land        | 290 Campus CT              | 94534      | 88/12                              | 4080 Mallard Drive, Concord                       | 94520          | Partial                        |         |
|     | No Data       |                            | 26107  | 0.60  |                               |                                     |  |   |                       |                          |                               |                            |            |                                    |   |                | Partial                        |         |
|     | '0027350010   | '0027350060                | 224151   | 5.15  |                               |                                     |  |   |                       |                          |                               |                            |            | 88/12                              | 4080 Mallard Drive, Concord                       | 94520          | Partial                        |         |
|     | '0027270030   | '0027271030                | 117561   | 2.70  |                               |                                     |  |   |                       |                          |                               |                            |            | Fairfield City                     | 1000 Webster Street                               | 94533          | Partial                        |         |





| Map                     | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building's) to be displaced | # of Existing Residential Building's) to be displaced | Name of Business                       | Use of Existing Building                   | Property Type                 | Displacement Address   | Zip code   | Owner                                    | Owner Address                              | Owner Zip code | Full or Partial Take of Parcel | Notes |
|-------------------------|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|--|--|-------------------------------|------------------------|------------|--|--|----------------|--------------------------------|-------|
| Alternative C - Map 3   | '0046050180   |                            | 515369   | 11.83   | 157.61                        | 6,865,491                           |  |   |  |  | Agricultural Land             | 3360 Ramsey Road       |            | Seecon Financial & Const. Co             | 4021 Port Chicago HWY, Concord             | 94524          | Partial                        |       |
|                         | '0180070070   |                            | 53741  | 1.23  |                               |                                     |  |   |  | vacant land                                | Government                    |                        |            | Fairfield City                           | 1000 Webster Street                        | 94533          | Partial                        |       |
|                         | '0180070060   |                            | 80126  | 1.84  |                               |                                     |  |   |  |  | Vacant SFR Land               |                        |            | Albert D Seeno Const Co.                 | 4021 Port Chicago HWY, Concord             | 94520          | Partial                        |       |
|                         | '0180160010   |                            | 72114  | 1.66  |                               |                                     |  |   |  | vacant land                                | Government                    |                        |            | Fairfield City                           | 1000 Webster Street                        | 94533          | Full                           |       |
|                         | '0180160220   |                            | 1307856  | 30.02   |                               |                                     |  |   |  |  | Vacant Industrial Land        |                        |            | West Coast Home Builders Inc.            | 4021 Port Chicago HWY, Concord             | 94524          | Partial                        |       |
|                         | '0180160020   |                            | 254287   | 5.84  |                               |                                     |  |   |  |  | Vacant Land                   |                        |            | Albert D Seeno Const Co.                 | 4021 Port Chicago HWY, Concord             | 94520          | Partial                        |       |
|                         | '0180160210   |                            | 24998  | 0.57  |                               |                                     |  |   |  | vacant land                                | Government                    | 5000 Red Top Road      | 94534-9527 | Fairfield-Suisun Unified School district | 1975 Pennsylvania Street                   | 94533          | Partial                        |       |
| Alternative C-1 - Map 4 | '0180160070   |                            | 182305   | 4.19  |                               |                                     |  |   |  |  | Manufacturing and Warehousing |                        |            | West Coast Home Builders Inc.            | 4021 Port Chicago Highway, Concord         | 94524          | Partial                        |       |
|                         | '0180160200   |                            | 25406  | 0.58  |                               |                                     |  |   |  |  | Manufacturing and Warehousing | 5191 Ferni Drive       | 94534-1607 | Pannattoni Investments LLC               | 8401 Jackson Road, Sacramento              | 95826          | Partial                        |       |
|                         | '0180130110   |                            | 90429  | 2.08  |                               |                                     |  |   |  |  | Vacant Industrial Land        | 490 Edison CT          | 94534-1636 | Yelton Properties                        | PO Box 2360, Vacaville                     | 95696          | Partial                        |       |
|                         | '0180130100   |                            | 14930  | 0.34  |                               |                                     |  |   |  | vacant land                                | Government                    |                        |            | Fairfield City                           | 1000 Webster Street                        | 94533          | Partial                        |       |
|                         | '0180130090   | 41554                      |  | 0.95  |                               |                                     |  |   | UMA Solar                              | Solar technology                           | Commercial Sales & Service    | 499A Edison CT         | 94534-1698 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Formaggi Di Ferrante                   | Cheese producers                           | Commercial Sales & Service    | 499A2 Edison CT        | 94534-1698 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     | 1  |   | The Picture Company                    | Producers of Wooden Picture Frames         | Manufacturing and Warehousing | 499B Edison CT         | 94534-1698 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | California Imaging                     | Medical Imaging Equipment, Sales & Service | Commercial Sales & Service    | 499C Edison CT         | 94534-1698 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Vacant Unit                            | vacant land                                | Manufacturing and Warehousing | 499D Edison CT         | 94534-1698 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         | '0180130080   | 73383                      |  | 1.68  |                               |                                     |  |   | Vacant Unit                            | vacant land                                | Manufacturing and Warehousing | 495A Edison CT         | 94534-1683 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     | 1  |   | Vacant Unit                            | vacant land                                | Manufacturing and Warehousing | 495D Edison Court      | 94534-1683 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | SDH Enterprises                        | Linen Manufacturer                         | Manufacturing and Warehousing | 495C Edison Court      | 94534-1683 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | SDH Enterprises                        | Linen Manufacturer                         | Manufacturing and Warehousing | 495 B Edison Court     | 94534-1683 | Edison Industrial 1 LLC                  | 500 Washington Street, San Francisco       | 94111          | Partial                        |       |
|                         | '0180130070   | 52709                      |  | 1.21  |                               |                                     |  |   | Fire Department                        | Fire Hall                                  | Government                    | 473 Edison CT          | 94534-1636 | Patricia Bosco                           | 10085 Lake Edge CT, Truckee                | 96161          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     | 1  |   | O'Hara Metals                          | Metal Supplier                             | Manufacturing and Warehousing | 473 Edison CT          | 94534-1636 | Patricia Bosco                           | 10085 Lake Edge CT, Truckee                | 96161          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Clothes Recycle Center                 | Charity Drop off/distribution center       | Commercial Sales & Service    | 5005 Fulton Drive      | 94534-1636 | Patricia Bosco                           | 10085 Lake Edge CT, Truckee                | 96161          | Partial                        |       |
|                         | '0180130050   | 80748                      |  | 1.85  |                               |                                     |  |   | Family Celebration Center              | Religious Center                           | Religious Facility            | 5045 Fulton Drive      | 94534-1636 | Maria Lasher                             | PO Box 155 Alamo                           | 94507          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     | 1  |   | Valley Rubber & Gasket                 |  | Manufacturing and Warehousing | 5045 Fulton Drive      | 94534-1635 | Maria Lasher                             | PO Box 155 Alamo                           | 94507          | Partial                        |       |
|                         | '0180030060   | 43396                      |  | 1.00  |                               |                                     |  |   | Marin Medical                          |  | Commercial Sales & Service    | 497A Edison CT         | 94534-1636 | Ronals Halterman                         | 7205 Santa Ysabel, Atascadero              | 93422          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Don's Transport/Liquid Trends Northbay | Transport Service                          | Commercial Sales & Service    | 497B Edison Court      | 94534-1636 | Ronals Halterman                         | 7205 Santa Ysabel, Atascadero              | 93422          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     | 1  |   | Brewer Metal Products                  | Brewing Products                           | Commercial Sales & Service    | 497C Edison Court      | 94534-1636 | Ronals Halterman                         | 7205 Santa Ysabel, Atascadero              | 93422          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Super Store Industries                 | Dairy Product Manufacturer and Suppliers   | Manufacturing and Warehousing | 497D & E Edison Court  | 94534-1636 | Ronals Halterman                         | 7205 Santa Ysabel, Atascadero              | 93422          | Partial                        |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Euro-Machines                          | vineyard & winery equipment                | Manufacturing and Warehousing | 497F & G Edison Court  | 94534-1636 | Ronals Halterman                         | 7205 Santa Ysabel, Atascadero              | 93422          | Partial                        |       |
|                         | '0180140190   |                            | 163172   | 3.75  |                               |                                     |  |   | Comcast                                | Internet Company                           | Commercial Sales & Service    | 5133 Fulton Drive      |            | Scannell Properties #90 LLC              | 800 East Ninety-Sixth Street, Indianapolis | 96240          | Partial                        |       |
|                         | '0180140180   |                            | 64325  | 1.48  |                               |                                     | 1  |   | Woodline Cabinets                      | Wood Cabinet producer                      | Manufacturing and Warehousing | 5165 Fulton Drive      | 94534-1638 | Paul & Terri McKay                       | 5165 Fulton Drive                          | 94534          | Partial                        |       |
|                         | '0180140020   |                            | 12898  | 0.30  |                               |                                     |  |   |  | vacant land                                | Vacant Industrial Land        | 5130 Fulton Drive      |            | Fulton Drive Commercial LLC              | 12885 Alcosta Boulevard, San Ramon         | 94583          | Partial                        |       |
|                         | '0180140030   |                            | 86110  | 1.98  |                               |                                     | 1  |   | Pacific Coast Steel                    | Steel Company                              | Manufacturing and Warehousing | 5160 Fulton Drive      | 94534-1639 | Eric Benson                              | 7155 Mission Gorge Road, San Diego         | 92120          | Partial                        |       |
|                         | '0180140040   | 60914                      |  | 1.40  |                               |                                     |  |   | Beutter Corp.                          |  | Manufacturing and Warehousing | 5170 Fulton Drive      | 94534-4221 | Steven Scherner                          | 167 Camino Dorado, Napa`                   | 94559          | Full                           |       |
|                         |               |                            |  | 0.00  |                               |                                     |  |   | Ciesco                                 | Technology Company                         | Manufacturing and Warehousing | 5170 Fulton Drive      | 94534-4221 | Steven Scherner                          | 167 Camino Dorado, Napa`                   | 94559          | Full                           |       |
|                         | '0180140050   |                            | 36325  | 0.83  |                               |                                     |  |   |  |  | Vacant Industrial Land        |                        |            | Steven Scherner                          | 167 Camino Dorado, Napa`                   | 94559          | Full                           |       |
|                         | '0180140060   |                            | 2080   | 0.05  |                               |                                     | 1  |   | No Name                                |  | Manufacturing and Warehousing | 355 Watt Drive         | 94534-4207 | Watt Four LLC                            | 355 Watt Drive                             | 94534          | Partial                        |       |
|                         | '0180140290   |                            |  | 2.09  |                               |                                     |  |   | Cal Ceramics/Tom Duffy                 | ceramic tile & stone manufacturers         | Manufacturing and Warehousing | 5200 Watt circle       | 94534-4209 | Carlsen Investments LLC                  | PO Box 4900, Scottsdale, AZ                | 85261-4900     | Partial                        |       |
|                         | '0180160180   |                            | 20499  | 0.47  |                               |                                     |  |   |  |  | Vacant Industrial Land        |                        |            | Fairfield City                           | 1000 Webster Street                        | 94533          | Partial                        |       |
|                         | '0180010090   |                            | 8764   | 0.20  |                               |                                     |  |   |  | vacant land                                | Government                    |                        |            | Fairfield City                           | 1000 Webster Street                        | 94533          | Partial                        |       |
|                         | '0180010080   |                            | 12150  | 0.28  |                               |                                     |  |   | Jack in the Box                        | Fast Food Restaurant                       | Commercial Sales & Service    | 107 Red Top Road       | 94534-9500 | Vistoria Land Partners LP                | 3655 Nobel Drive, San Diego                | 92122          | Partial                        |       |
|                         | '0180010070   |                            | 11948  | 0.27  |                               |                                     |  |   | Circle K                               | Gas Station                                | Service Station               | 119 Red Top Road       | 94534-9500 | Convenience Retailers LLC                | PO Box 59365, Schaumburg, IL               | 60159-0365     | Partial                        |       |
|                         | '0180010050   |                            | 31145  | 0.71  |                               |                                     | 2  |   | Sunnyside Farms                        | Produces Milk                              | Manufacturing and Warehousing | 199 Red Top Road       | 94534-9500 | Super Store Industries                   | PO Box 2898                                | 94533          | Partial                        |       |
|                         | '0180010100   |                            | 956403   | 21.96   |                               |                                     |  |   | Thomas Casselbarry, Animal Hospital    | Veterinarian Clinic/Animal Hospital        | Commercial Sales & Service    | 117 Red Top Road       | 94534-9500 | Margaret Ferrari                         | 5987 Twin Sisters CT                       | 94585          | Partial                        |       |
|                         | '0180010110   |                            | 3205   | 0.07  |                               |                                     |  |   |  |  | Vacant Commercial Land        |                        |            | Margaret Ferrari                         | 5987 Twin Sisters CT                       | 94585          | Partial                        |       |
|                         | '0148260050   |                            | 434564   | 9.98  | 44.04                         | 1,918,382                           |  |   |  |  | Range and Watershed           | 1646 State Highway 12  |            | Louis & Yolanda Salem                    | 2321 big Ranch Road, Napa                  | 94558          | Partial                        |       |
|                         | '0148260040   |                            | 22092  | 0.51  | 21.66                         | 943,510                             |  |   |  |  |                               | vacant land            |            | Vallejo City                             | 555 Santa Clara Street, Vallejo            | 94590          | Partial                        |       |
|                         | '0148260080   |                            | 598304   | 13.74   | 21.66                         | 943,510                             |  |   |  |  | Range and Watershed           |                        |            | Thomas Turner & Susan F                  | 1687 Jameson Canyon Road                   | 94503          | Partial                        |       |
|                         | '0148270010   |                            | 177322   | 4.07  | 12.8                          | 557,568                             |  |   |  |  | Range and Watershed           |                        |            | Gary & Mary Mangels                      | 2294 Morrison Lane                         | 94534          | Partial                        |       |
|                         | '0148270340   |                            | 203794   | 4.68  |                               |                                     |  |   |  |  | Miscellaneous                 | 3537 Roberts Road      |            | Robert Dittmer                           | 3539 Roberts Road                          | 94534          | Partial                        |       |
|                         | '0148260090   |                            | 143303   | 3.29  |                               |                                     |  |   |  |  | Miscellaneous                 | 1687 James Canyon Road |            | Thomas Turner & Susan F                  | 1687 Jameson Canyon Road                   | 94503          | Partial                        |       |
|                         | '0148260010   |                            | 842519   | 19.34   |                               |                                     |  |   |  |  | Miscellaneous                 |                        |            | Gary Mangels & Mary K                    | 2294 Morrison Lane                         | 94534          | Partial                        |       |
|                         | '0148270340   |                            | 203794   | 4.68  | 42.23                         | 1,839,539                           |  |   |  |  | Range and Watershed           | 3537 Roberts Road      |            | Robert Dittmer                           | 3539 Roberts Road                          | 94534          | Partial                        |       |



| Map                   | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building's) to be displaced | # of Existing Residential Building's) to be displaced | Name of Business            | Use of Existing Building | Property Type                 | Displacement Address       | Zip code   | Owner                          | Owner Address                                     | Owner Zip code | Full or Partial Take of Parcel | Notes              |
|-----------------------|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|-----------------------------|--------------------------|-------------------------------|----------------------------|------------|--------------------------------|---|----------------|--------------------------------|--------------------|
|                       | No Data       |                            | 241217   | 5.54  |                               |                                     |  |   |                             |                          |                               |                            |            |                                |   |                | Partial                        | No parcel number   |
|                       | '0148270060   |                            | 219074   | 5.03  | 5.99                          | 260,924                             |  |   |                             |                          | Agricultural Land             |                            |            | Robert Dittmer                 | 3539 Roberts Road                                 | 94534          | Partial                        |                    |
|                       | '0148270290   |                            | 523273   | 12.01   |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0148270300   |                            | 11202  | 0.26  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 5125 Business Center Drive | 94534-1624 | Lee's Pet club Inc.            | 3535 Hollis Street, Emeryville                    | 94601          | Partial                        | No area            |
|                       | '0148270310   |                            | 5394   | 0.12  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 5121 Business Center Drive | 94534-1788 | Napa Tahoe Spec. Retail Dev.   | 717 Westholme Avenue, Los Angeles                 | 90024          | Partial                        |                    |
|                       | '0148270320   |                            | 11912  | 0.27  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 5117 Business Center Drive | 94534-1624 | Napa Tahoe Spec. Retail Dev.   | 717 Westholme Avenue, Los Angeles                 | 90024          | Partial                        |                    |
|                       | '0148270330   |                            | No Data  |   |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 5113 Business Center Drive | 94534-1624 | Real Estate Association LLC.   | 633 East Victor Road, Lodi                        | 95240          | Partial                        |                    |
|                       | '0148270170   |                            | 123  | 0.00  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 5111 Business Center Drive | 94534-1624 | Richard & Beverly Doyle        | 511 Business Center Drive                         | 94534          | Partial                        |                    |
|                       | '0180120080   |                            | 62223  | 1.43  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        | 9321 West Cordelia Road    |            | Vision Integral properties LLC | 9321 West Cordelia Road                           | 94534          | Full                           |                    |
|                       | '0180120070   |                            | 42645  | 0.98  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        | 9321 West Cordelia Road    |            | Vision Integral properties LLC | 9321 West Cordelia Road                           | 94534          | Partial                        |                    |
|                       | '0180120050   |                            | 6222   | 0.14  |                               |                                     |  |   |                             |                          | Manufacturing and Warehousing | 9324 West Cordelia Road    |            | Curtis & CC Beckwith           | 131 Hidden Glen CT, Vacaville                     | 95688          | Partial                        |                    |
|                       | '0180120060   |                            | 113247   | 2.60  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        |                            |            | North Bay Properties LLC       | 250 Dittmer Road                                  | 94534          | Partial                        |                    |
|                       | '0180120010   |                            | 56545  | 1.30  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        |                            |            | North Bay Properties LLC       | 250 Dittmer Road                                  | 94534          | Partial                        |                    |
|                       | '0180110050   | '0180110260                | 71018  | 1.63  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 4865 Auto Plaza Court      |            | Simvest Real Estate Properties | 655 Montgomery Street, ST 1190, San Francisco, CA | 94111          | Partial                        |                    |
|                       | '0045280440   | '0045280440                | 90784  | 2.08  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Full                           |                    |
|                       | '0045290010   |                            | 10257  | 0.24  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Full                           |                    |
|                       | '0045280060   |                            | 9926   | 0.23  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0045880040   |                            | 4494   | 0.10  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0045280050   |                            | 9818   | 0.23  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Full                           |                    |
|                       | '0045250060   |                            | 9954   | 0.23  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Full                           |                    |
|                       | '0045280070   |                            | 2993   | 0.07  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0148280130   |                            | 21998  | 0.51  |                               |                                     |  |   |                             | vacant land              | Government                    | 3683 Green Valley Road     | 94534      | Fairfield City                 | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0148280280   |                            | 4826   | 0.11  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 5041 Business Center       | 94534-1786 | Watt/Fairfield Associates LP   | PO Box 131071, Carlsbad                           | 92013          | Partial                        |                    |
|                       | '0148280120   |                            | 9751   | 0.22  |                               |                                     |  |   |                             |                          |                               |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0148280140   |                            | 3855   | 0.09  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield Redevelopment Agency | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0045310650   | '0045310890                | 21931  | 0.50  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 4670 Central Way           | 94534-1809 | B&L Properties II LLC          | 97 Dobbins Street, Vacaville, CA                  | 95688          | Partial                        |                    |
|                       | '0045310660   |                            | 17358  | 0.40  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 4560 Central Way           | 94534-1609 | Maurice Epps                   | 8 Willotta Drive                                  | 94534          | Partial                        |                    |
|                       | '0045310120   |                            | 10741  | 0.25  |                               |                                     |  |   |                             |                          | Service Station               | 4450 Central Way           | 94534-1609 | World Oil Management Co.       | PO Box 2099 Houston, TX                           | 77252          | Partial                        |                    |
|                       | '0045310850   |                            | 1037   | 0.02  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 4470 Central Way           | 94534-1805 | Origone & Origone              | 5261 North Highway 99, Stockton                   | 95212          | Partial                        |                    |
| Alternative C - Map 5 | '0027271060   |                            | 481320   | 11.05   | 18                            | 784,080                             | 7  | 1   |                             | farm land                | Agricultural Land             | 4018 Russell Road          | 94534      | Michelle Valine                | 4000 Russell Road, Suisun City                    | 94585          | Partial                        |                    |
|                       | '0027251330   | '0027251390                | 478887   | 10.99   | 61.86                         | 2,694,622                           |  |   |                             |                          | Agricultural Land             | 4000 Russell Road          |            | Michelle Valine                | 4000 Russell Road, Suisun City                    | 94585          | Partial                        |                    |
|                       | '0027251425   |                            | 11522  | 0.26  |                               |                                     |  |   |                             |                          |                               |                            |            | S I D                          | PO Box 536, Vacaville, CA                         | 95688          | Partial                        |                    |
|                       | '0027251340   |                            | 8530   | 0.20  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City                    | 94585          | Partial                        | Engineers sort out |
|                       | '0027251440   |                            | 88807  | 2.04  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City                    | 94585          | Full                           |                    |
|                       | No Data       |                            | 365967   | 8.40  |                               |                                     |  |   |                             |                          |                               |                            |            |                                |   |                | Partial                        |                    |
|                       | '0027251370   |                            | 162274   | 3.73  | 20.37                         | 887,317                             |  |   |                             |                          | Agricultural Land             | 4012 Russell Road          |            | Nick & Enina Orciuoli          | 1651 Estee Avenue, Napa                           | 94558          | Partial                        |                    |
|                       | '0027251310   |                            | 109109   | 2.50  | 60.53                         | 2,636,687                           |  |   |                             |                          | Agricultural Land             |                            |            | William Robbins                | 1300 Clay Street, Oakland                         | 94612          | Partial                        |                    |
|                       | '0027251400   |                            | 2702   | 0.06  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Michelle Valine                | 4000 Russell Road, Suisun City                    | 94585          | Partial                        | Bike Path          |
|                       | '0027510030   |                            | 99228  | 2.28  |                               |                                     |  |   |                             |                          | Taxable Below Min. Value      |                            |            | Raymond & Betty Conner         | 39 Conner CT                                      | 94534          | Partial                        |                    |
|                       | '0027510200   |                            | 9560   | 0.22  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | California State               | District 10 PO Box 2038, Stockton                 | 95201          | Full                           |                    |
|                       | '0027510210   |                            | 61096  | 1.40  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | California State               | District 10 PO Box 2038, Stockton                 | 95201          | Full                           |                    |
|                       | '0027510010   |                            | 147514   | 3.39  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Full                           |                    |
|                       | '0027510060   |                            | 1417   | 0.03  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | California State               | District 10 PO Box 2038, Stockton                 | 95201          | Full                           |                    |
|                       | '0027510160   |                            | 11721  | 0.27  | 4.85                          | 211,266                             |  |   |                             |                          | Agricultural Land             |                            |            | Clyde Loney                    | 4135 Abernathy Road                               | 94534          | Partial                        |                    |
|                       | '0150270050   |                            | 43918  | 1.01  | 7.66                          | 333,670                             |  |   |                             |                          | Agricultural Land             | 2814 Rockville Road        |            | Dorene Darville                | 2802 Rockville Road                               | 94534          | Partial                        |                    |
|                       | '0150270060   |                            | 89136  | 2.05  | 10.47                         | 456,073                             |  |   |                             |                          | Agricultural Land             | 2818 Rockville Road        |            | Dorene Darville                | 2802 Rockville Road                               | 94534          | Partial                        |                    |
|                       | '0150270080   |                            | 43198  | 0.99  |                               |                                     | 3  |   | Suisun Valley Fruit Growers | Fruit Orchard            | Manufacturing and Warehousing | 4613 Chadbourne Road       |            | Suisun Valley Fruit Growers    | Box 417, Suisun                                   | 94585          | Partial                        |                    |
|                       | '0150240020   |                            | 7767   | 0.18  |                               |                                     | 2  |   | Suisun Valley Fruit Growers | Fruit Orchard            | Manufacturing and Warehousing | 4162 Chadbourne Road       |            | Suisun Valley Fruit Growers    | Box 417, Suisun                                   | 94585          | Partial                        |                    |
|                       | '0150240010   |                            | 58149  | 1.33  |                               |                                     |  |   |                             | vacant land              | Government                    |                            |            | Fairfield City                 | 1000 Webster Street                               | 94533          | Partial                        |                    |
|                       | '0028200530   | '0028200740                | 5053   | 0.12  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    |                            |            | Fairfield Ford Inc.            | 3050 Automall Court                               | 94534          | Partial                        |                    |
|                       | '0028200570   |                            | 7704   | 0.18  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    |                            |            | Fairfield Ford Inc.            | 3050 Automall Court                               | 94534          | Partial                        |                    |
|                       | '0028123050   |                            | 21570  | 0.50  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 2955 Auto Mall Parkway     | 94533-5833 | Napa Associates II             | 113 North Newport, Napa                           | 94559          | Partial                        |                    |
|                       | '0028123040   |                            | 732  | 0.02  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 2901 Auto Mall Parkway     | 94533-5833 | Lithia Real Estate Inc.        | 360 East Jackson, Medford, OR                     | 97501          | Partial                        |                    |
|                       | '0028750300   |                            | 8830   | 0.20  |                               |                                     |  |   |                             |                          | Vacant Commercial Land        |                            |            | Wal-Mart Realty Corp.          | 2001 SE 10th Street, Bentonville, AR              | 72716-0550     | Partial                        |                    |
|                       | '0028750290   |                            | 10229  | 0.23  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 300 Chadbourne Road        | 94534-9636 | Wal-Mart Realty Corp.          | 2001 SE 10th Street, Bentonville, AR              | 72716-0550     | Partial                        |                    |
|                       | '0028750120   |                            | 4248   | 0.10  |                               |                                     |  |   |                             |                          | Commercial Sales & Service    | 1 Jelly Belly Lane         | 94533-6722 | Rowland Family Properties      | 1 Jelly Belly Lane                                | 94533          | Partial                        |                    |
|                       | '0028750130   |                            | 16047  | 0.37  |                               |                                     |  |   |                             |                          | Manufacturing and Warehousing | 1 Jelly Belly Lane         | 94533-6722 | Herman Rowland                 | 1 Jelly Belly Lane                                | 94533          | Partial                        |                    |
|                       | '0028750310   |                            | 15407  | 0.35  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        |                            |            | Philip Garrett                 | 3428 Ettie Street, Oakland                        | 94608          | Partial                        |                    |
|                       | '0028792140   |                            | 7837   | 0.18  |                               |                                     |  |   |                             |                          | Manufacturing and Warehousing | 2300 North Watney Way      | 94533-6720 | Thomas & Susan Chipman         | 1040 Marina Village Parkway, Alameda              | 94501          | Partial                        |                    |
|                       | '0028792100   |                            | 14126  | 0.32  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        |                            |            | Thomas & Susan Chipman         | 1040 Marina Village Parkway, Alameda              | 94501          | Partial                        |                    |
|                       | '0028792110   |                            | 9633   | 0.22  |                               |                                     |  |   |                             |                          | Vacant Industrial Land        |                            |            | DGP Associates                 | 30977 San Antonio                                 | 94544          | Partial                        |                    |





| Map | Parcel Number | Parcel Numbers from County | Total Area from Parcel used for Extension (SF) | Total Area from Parcel used for Extension (Acres) | Total Area of Parcel in Acres | Total Area of Parcel in Square Feet | # of Existing Business Building's) to be displaced | # of Existing Residential Building's) to be displaced | Name of Business                       | Use of Existing Building      | Property Type                 | Displacement Address    | Zip code   | Owner                          | Owner Address                                      | Owner Zip code | Full or Partial Take of Parcel | Notes                                |
|-----|---------------|----------------------------|--|---|-------------------------------|-------------------------------------|--|---|--|-------------------------------|-------------------------------|-------------------------|------------|--------------------------------|--|----------------|--------------------------------|--------------------------------------|
|     | '0028792130   |                            | 15401  | 0.35  |                               |                                     |  |   |  |                               | Vacant Industrial Land        | 2100 Courage Drive      | 94533-6719 | DGP Associates                 | 30977 San Antonio                                  | 94544          | Partial                        |                                      |
|     | '0028792120   |                            | 43648  | 1.00  |                               |                                     |  |   |  |                               | Manufacturing and Warehousing | 2102 Courage Drive      | 94533-6719 | John Howard Luttgens           | PO Box 891870 Temecula                             | 92589          | Partial                        |                                      |
|     | '0028692450   |                            | 3068   | 0.07  |                               |                                     |  |   |  |                               | Improved SFR Properties       | 2207 Burgundy Way       | 94533-5854 | Esmeralda Ojeda                | 2207 Burgundy Way                                  | 94533          | Partial                        |                                      |
|     | '0028692420   |                            | 41700  | 0.96  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | California State               | Department of Transportation D Street 10, Stockton | 95201          | Partial                        |                                      |
|     | '0031301440   |                            | 21268  | 0.49  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | California State               | Department of Transportation D Street 10, Stockton | 95201          | Full                           |                                      |
|     | '0032010170   |                            | 80613  | 1.85  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | Fairfield Redevelopment Agency | 1000 Webster Street                                | 94533          | Full                           |                                      |
|     | '0032010320   |                            | 48736  | 1.12  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | California State               | Department of Transportation D Street 10, Stockton | 95201          | Full                           |                                      |
|     | '0032010190   |                            | 74512  | 1.71  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | Fairfield Redevelopment Agency | 1000 Webster Street                                | 94533          | Full                           |                                      |
|     | '0032010300   |                            | 49832  | 1.14  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | California State               | Department of Transportation D Street 10, Stockton | 95201          | Partial                        |                                      |
|     | '0032010460   |                            | 2457   | 0.06  |                               |                                     |  |   |  |                               | Vacant Industrial Land        |                         |            | Meyer Cookware Industries      | 1 Meyer Place, Vallejo                             | 94590          | Partial                        |                                      |
|     | '0032010140   |                            | 139643   | 3.21  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | Fairfield Redevelopment Agency | 1000 Webster Street                                | 94533          | Partial                        |                                      |
|     | '0032010390   |                            | 307383   | 7.06  | 65                            | 2,831,400                           |  |   |  |                               | Agricultural Land             |                         |            | Tom Gentry California CO.      | PO Box 295, Honolulu, HI                           | 96809          | Partial                        |                                      |
|     | '0032010230   |                            | 29234  | 0.67  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | Fairfield Redevelopment Agency | 1000 Webster Street                                | 94533          | Partial                        |                                      |
|     | '0031170340   |                            | 2832   | 0.07  |                               |                                     |  |   |  |                               | Improved Multiple Residential | 201 Pennsylvania Avenue | 94533-6458 | Fairfield Park Apartments      | 414 East Chapman Avenue, Orange                    | 92866          | Partial                        |                                      |
|     | '0032020260   |                            | 53558  | 1.23  |                               |                                     |  |   |  |                               | Vacant Industrial Land        |                         |            | Penske Truck Leasing Co        | Route 10 & Pheasant Road, Reading, PA              | 19603          | Partial                        |                                      |
|     | '0032020250   |                            | 255801   | 5.87  |                               |                                     |  |   |  |                               | Vacant Industrial Land        |                         |            | Penske Truck Leasing Co        | Route 10 & Pheasant Road, Reading, PA              | 19603          | Full                           |                                      |
|     | '0032020270   |                            | 14716  | 0.34  |                               |                                     |  |   |  |                               | Commercial Sales & Service    | 1249 Illinois Street    | 94533-6469 | Wayne & Jane Day               | 1249 Illinois Street                               | 94533          | Partial                        |                                      |
|     | '0032020210   |                            | 65977  | 1.51  | 2.73                          | 118,918                             | 1  |   |  |                               | Government                    |                         |            | Fairfield Suisun Sewer Dist.   | 1010 Chadbourne Road                               | 94534          | Partial                        |                                      |
|     | '0032020180   |                            | 1394   | 0.03  |                               |                                     |  |   |  |                               | Taxable Below Min. Value      |                         |            | Fairfield City                 | 1000 Webster Street                                | 94533          | Partial                        |                                      |
|     | '0032020040   |                            | 37894  | 0.87  | 5                             | 217,800                             |  |   |  |                               | Agricultural Land             |                         |            | Gregory Gilbert                | 8776 Kildee CT, Orangeville                        | 95662          | Partial                        |                                      |
|     | '0032020140   |                            | 374831   | 8.60  | 21.51                         | 936,976                             |  |   |  |                               | Agricultural Land             |                         |            | Tom Gentry California CO.      | ATTN: Accounting, Honolulu, HI                     | 96809-0295     | Partial                        |                                      |
|     | '0032020190   |                            | 4977   | 0.11  |                               |                                     |  |   |  |                               | Taxable Below Min. Value      |                         |            | Fairfield City                 | 1000 Webster Street                                | 94533          | Partial                        |                                      |
|     | '0032020200   |                            | 328148   | 7.53  |                               |                                     |  |   |  |                               | Taxable Below Min. Value      |                         |            | Fairfield City                 | 1000 Webster Street                                | 94533          | Full                           |                                      |
|     | '0032031020   |                            | 24224  | 0.56  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | Pacific Gas & Electric Co.     | Tax Department B8E, San Francisco                  | 94177          | Full                           |                                      |
|     | '0032031030   |                            | 10643  | 0.24  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | California State               | Department of Transportation D Street 10, Stockton | 95201          | Full                           |                                      |
|     | '0032020160   |                            | 123279   | 2.83  | 4.54                          | 197,762                             |  |   |  |                               | Agricultural Land             |                         |            | Tom Gentry California CO.      | ATTN: Accounting, Honolulu, HI                     | 96809-0295     | Partial                        |                                      |
|     | '0032052120   |                            | 1311   | 0.03  |                               |                                     | 1  |   |  | Tidy Tails                    | Pet Grooming                  | 305 Spring Street       | 94585-2433 | Kathryn Shamieh                | 1004 Spinnaker CT                                  | 94585          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Oasaka Massage                | Massage Services              | 311 Spring Street       | 94585-2433 | Kathryn Shamieh                | 1004 Spinnaker CT                                  | 94585          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Good Life Health Spa          | Spa Services                  | 313 Spring Street       | 94585-2433 | Kathryn Shamieh                | 1004 Spinnaker CT                                  | 94585          | Partial                        |                                      |
|     | '0032020240   |                            | 9061   | 0.21  |                               |                                     |  |   |  | Railway Tracks                | tracks                        |                         |            | Suisun Redevelopment Agency    | 701 Civic Center Boulevard, Suisun                 | 94585          | Partial                        |                                      |
|     | '0032052090   |                            | 1236   | 0.03  |                               |                                     |  |   |  | Tweed Hut                     | Recording Studio              | 201 Benton CT           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Kyron's Body Shop             | Body Shop                     | 205 Benton CT           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.08  |                               |                                     |  |   |  | Iron Riders Inc.              | Body Shop                     | 207 Benton CT           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     | '0032052100   |                            | 3670   | 0.00  |                               |                                     | 1  |   |  |                               | vacant land                   | 209 Benton CT           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Rich Campbell                 | General Engineering           | 211 Benton CT           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  |                               | Commercial Sales & Service    | 213 Benton Ct           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Xtreme Cyclez                 | Bicycle/Motorcycle Store      | 215 Benton CT           | 94585-2405 | Kurt Cronauer                  | 1295 Horizon Drive                                 | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  |                               | Commercial Sales & Service    |                         |            |                                |  |                |                                |                                      |
|     | '0032052210   |                            | 13383  | 0.31  |                               |                                     | 1  |   |  | Castle Rock Construction      | Construction Company          | 221 Benton CT           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Marine Industrial Fire Safety | Water Fire Safety             | 223 Benton Ct           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | Clear Image                   | Producer of Signs             | 225 Benton Ct           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  |                               | Commercial Sales & Service    | 227 Benton Ct           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     |               |                            |  | 0.00  |                               |                                     |  |   |  | The Hitman                    | Termite & Pest Control        | 229 Benton Ct           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     | '0032081020   |                            | 8971   | 0.21  |                               |                                     |  |   |  | Hi-Tech Auto Service          | Body Shop                     | 237 Benton CT           | 94585-2405 | Kishore Sarup                  | 237 Benton CT                                      | 94585          | Partial                        |                                      |
|     | '0032081030   |                            | 9176   | 0.21  |                               |                                     | 1  |   |  | Unknown                       | Possible body shop            | 241 Benton CT           | 94585-2405 | Dana Fennie                    | 508 Cottonwood Drive                               | 94533          | Partial                        |                                      |
|     | '0032081040   |                            | 8763   | 0.20  |                               |                                     | 2  |   |  | Vacant Unit                   | vacant land                   | 247 Benton CT           | 94585-2405 | Spiros & rochelle Kontogiannis | 760 Kellogg Street                                 | 94585          | Partial                        |                                      |
|     | '0032081050   |                            | 8470   | 0.19  |                               |                                     |  |   |  | Roofing Tile Yard             | Roofing Supplies              | 257 Benton CT           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     | '0032081060   |                            | 8635   | 0.20  |                               |                                     | 1  |   |  | Suisun Roofing & Supply       | Roofing Supplies              | 263 Benton CT           | 94585-2405 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     | '0032081310   |                            | 859  | 0.02  |                               |                                     | 1  |   |  | Suisun Roofing & Supply       | Roofing Supplies              | 260 Benton CT           | 94585-2406 | Engell Brothers                | PO Box GG  | 94533          | Partial                        |                                      |
|     | '0032111010   |                            | 91667  | 2.10  |                               |                                     |  |   |  | vacant land                   | Government                    |                         |            | Suisun City                    | 701 Suisun Street, Suisun                          | 94585          | Partial                        |                                      |
|     | '0032113130   |                            | 7471   | 0.17  |                               |                                     |  |   | Residential House * Possibly 50+ years | house                         | Improved SFR Properties       | 200 Solano Street       | 94585-2429 | Rodney Mullin                  | 200 Solano Street, Suisun                          | 94585          | Full                           |                                      |
|     | No Data       |                            | 4916   | 0.11  |                               |                                     |  |   |  |                               |                               |                         |            |                                |  |                | Partial                        | Part of the street, no parcel number |



## Appendix J   Environmental Commitment Record





# Appendix J Environmental Commitment Record

## Environmental Commitments

| Avoidance, Minimization, and/or Mitigation Measures  | Implementation Means    | Responsible Party                            | Timing                           |
|--|-------------------------|--|----------------------------------|
| <b>HUMAN ENVIRONMENT</b>   |                         |  |                                  |
| <b>Land Use</b>  |                         |  |                                  |
| Realign Linear Park Trail to the north at the Abernathy Road/I-80 interchange prior to construction. This realignment will allow for the continued use of the trail facilities while construction activities are underway  |                         | Project proponent                            | Prior to construction            |
| <b>Growth</b>  |                         |  |                                  |
| None   |                         |  |                                  |
| <b>Farmlands</b>   |                         |  |                                  |
| Provide Replacement Conservation Easement  | Compensatory Mitigation | Project proponent                            | Prior to construction            |
| <b>Community Impacts</b>   |                         |  |                                  |
| None   |                         |  |                                  |
| <b>Utilities and Emergency Services</b>  |                         |  |                                  |
| Minimize Disruption of Utilities Services  | Agreement               | Construction contractor                      | During construction              |
| Prepare Transportation Management Plan (TMP)   | Agreement               | Project proponent                            | Prior to construction            |
| <b>Traffic and Transportation/Pedestrian and Bicycle Facilities</b>  |                         |  |                                  |
| Design and Construct Intersection Improvements   |                         | Project proponent                            | Design                           |
| Design each Phase of the Project to Accomodate Existing and Planned Bicycle and Pedestrian Facilities  |                         | Project proponent                            | Design                           |
| Adjust Transit Routes and Stops as Needed  |                         | Project proponent                            | Design                           |
| Minimize Impacts through a Transportation Management Plan (TMP) and Construction Scheduling <ul style="list-style-type: none"> <li>Provide TMP to emergency service providers</li> <li>Provide TMP to School District for review/input</li> <li>Route Trucks away from High School when in session.</li> </ul> |                         | Project proponent or construction contractor | Prior to and during construction |
| <b>Visual and Aesthetic Resources</b>  |                         |  |                                  |
| Replace Landscaping as Appropriate   | Follow up project       | Project proponent                            | After project completion         |
| Direct Lighting Only Where Needed, and Away from Residences  |                         | Project proponent                            | Design                           |
| Design Westbound Truck Scales to be Visually Compatible with Local Architectural Features of the Surrounding Community   | Standard Specification  | Project proponent or construction contractor | Design/construction              |
| Incorporate Aesthetic Recommendations in Design of Freeway-Related Structures  | Standard Specifications | Project proponent                            | Design                           |
| <b>Cultural Resources</b>  |                         |  |                                  |
| Implement Programmatic Agreement and Historic Properties Treatment Plan  | Agreement               | Project proponent                            | Prior to construction            |

| Avoidance, Minimization, and/or Mitigation Measures  | Implementation Means    | Responsible Party       | Timing                |
|--|-------------------------|-------------------------|-----------------------|
| <b>PHYSICAL ENVIRONMENT</b>  |                         |                         |                       |
| <b>Hydrology and Floodplain</b>  |                         |                         |                       |
| Construct Upstream Inlet Structure and Underground Flood Control Storage   |                         | Project proponent       | Design                |
| Work with Appropriate Agencies to Address Flooding Issues Related to Raines Drain.   |                         | Project proponent       | Design                |
| <b>Water Quality and Stormwater Runoff</b>   |                         |                         |                       |
| Permanent Design Pollution Prevention BMPs <ul style="list-style-type: none"> <li>Slope/Surface Protection Systems</li> <li>Concentrated Flow Conveyance Systems</li> <li>Preserve existing vegetation</li> <li>Permanent treatment BMPs               <ul style="list-style-type: none"> <li>Biofiltration Swales/Strips</li> <li>Dry weather diversions</li> <li>Infiltration devices</li> <li>Detention devices</li> <li>Gross solids removal devices</li> <li>Traction sand traps</li> <li>Media filters</li> <li>Wet basins</li> <li>Drain inlet stenciling</li> </ul> </li> <li>Hydromodification control</li> </ul> | Standard Specifications | Project proponent       | Design                |
| Construction site BMPs <ul style="list-style-type: none"> <li>Hydraulic mulch</li> <li>Hydroseeding</li> <li>Soil Binders</li> <li>Silt fence</li> <li>Sediment traps</li> <li>Sand bags</li> <li>Fiber rolls</li> <li>Straw bale barrier</li> </ul>   | Permit                  | Construction contractor | Prior to Construction |
| For substantial dewatering - obtain a project-specific Low Threat Discharge and Dewatering NPDES permit from the RWQCB   | Permit                  | Project proponent       | Design                |
| <b>Geology/Soils/Seismic/Topography</b>  |                         |                         |                       |
| Structures will be Designed to Meet the Regulations and Standards Associated with UBC Seismic Hazard Zone 4/ CBSC Standards, Department Standards, and (if applicable) County General Plan Standards to Minimize Potential Ground Shaking Risks on Associated Project Features   | Standard Specifications | Project proponent       | Design                |
| Implement Recommendations from Draft Geotechnical Reports to Accommodate Permanent Fault-Related Ground Deformation Effects from Surface Fault Rupture on Project Facilities and to Accommodate Effects of Ground Shaking on Project Facilities  | Agreement               | Project proponent       | Design                |
| Design Structures and Facilities to Account for Unstable Materials   | Standard Specifications | Project proponent       | Design                |
| Incorporate Specific Recommendations Pertaining to Cut Slopes and Fill Slopes/Embankments into the Project Design.   |                         | Project proponent       | Design                |

| Avoidance, Minimization, and/or Mitigation Measures   | Implementation Means    | Responsible Party                             | Timing                                       |
|---|-------------------------|---|--|
| Implement Recommendations from Draft Geotechnical Report to Accommodate Effects of Liquefaction on Project Facilities/Design Specific Project Elements to Accommodate Effects of Liquefaction |                         | Project proponent                             | Design                                       |
| Conduct Future Geotechnical Investigation/Implement Preliminary Recommendations from Draft Geotechnical Report to Accommodate Effects of Slope Failure on Project Facilities                  |                         | Project proponent                             | Design                                       |
| Implement Preliminary Recommendations from Draft Geotechnical Report to Accommodate Effects of Consolidation Settlements on Project Facilities  |                         | Project proponent                             | Design                                       |
| <b>Paleontology</b>   |                         |   |  |
| Conduct Preconstruction Surveys   | Standard Specification  | Project proponent                             | Prior to construction                        |
| Train Construction Personnel in Recognizing Fossil Material   |                         | Project proponent or construction contractor  | Immediately prior to and during construction |
| Retain a Qualified Professional Paleontologist to Monitor Ground-Disturbing Activities  |                         | Project proponent or construction contractor  | During construction                          |
| Stop Work and Consult a Qualified Paleontologist if Fossil Remains Are Encountered During Construction  | Standard Specifications | Construction contractor                       | During construction                          |
| <b>Hazardous Waste/Materials</b>  |                         |   |  |
| Test Groundwater for Contaminants   |                         | Project proponent                             | Prior to construction                        |
| Implement a Health and Safety Plan  | Standard Specification  | Project proponent or construction contractor  | Prior to construction                        |
| Handle, Remove, Store and Dispose of Yellow Striping According to Health and Safety Plan  |                         |   |  |
| Dispose of Soils Contaminated with ADL, Arsenic, Pesticides, and Herbicides in Accordance with Appropriate Regulations  | Standard Specification  | Construction contractor                       | During and after construction                |
| Coordinate Timing of Construction Activities with Local Growers to Avoid Exposure of Construction Workers to Respiratory Irritants from Aerially Applied Chemicals                            |                         | Construction contractor                       | During construction                          |
| <b>Air Quality</b>  |                         |   |  |
| Implement Measures to Reduce MSAT and Criteria Pollutant Emissions  |                         | Project proponent                             |  |
| Implement California Department of Transportation Standard Specification Section 14   | Standard Specifications | Construction contractor                       | Prior to and during construction             |
| Implement Additional Control Measures when Practicable for Construction Emissions of Fugitive Dust  | Agreement               | Project proponent and construction contractor | During construction                          |
| Implement Measures to Reduce Exhaust Emissions from Off-Road Diesel-Powered Equipment   | Agreement               | Construction contractor                       | During construction                          |
| <b>Noise</b>  |                         |   |  |
| Minimize Construction Noise   | Standard Specification  | Construction contractor                       | During construction                          |



| Avoidance, Minimization, and/or Mitigation Measures   | Implementation Means    | Responsible Party                            | Timing                            |
|---|-------------------------|--|-----------------------------------|
| <b>Energy</b>   |                         |  |                                   |
| None  |                         |  |                                   |
| <b>BIOLOGICAL ENVIRONMENT</b>   |                         |  |                                   |
| <b>Natural Communities</b>  |                         |  |                                   |
| Install Fencing around the Construction Area to Protect Sensitive Biological Resources to be Avoided  | Permit                  | Construction contractor/ biologist           | Prior to and during construction  |
| Conduct Environmental Awareness Training for Construction Employees   | Permit                  | Project proponent or construction contractor | Prior to and during construction  |
| Retain a Biological Monitor to Conduct Visits during Construction in Sensitive Habitats   | Permit                  | Project proponent or construction contractor | During construction               |
| Avoid and Minimize Potential Disturbance of Riparian Communities  | Permit                  | Construction contractor                      | During construction               |
| Compensate for Temporary and Permanent Loss of Riparian Vegetation  | Compensatory Mitigation | Project proponent                            | After project completion          |
| <b>Wetlands and Other Waters</b>  |                         |  |                                   |
| Protect Water Quality and Prevent Erosion and Sedimentation into Drainages and Wetlands   | Permit                  | Project proponent or construction contractor | During construction               |
| Restore Temporarily Disturbed Drainage Habitat and Compensate for Permanent Loss of Drainage Habitat  | Permit                  | Construction contractor                      | After project completion          |
| Restore Temporarily Disturbed Perennial Marsh   | Permit                  | Construction contractor                      | After project completion          |
| Compensate for Permanent Loss of Wetlands   | Compensatory Mitigation | Project proponent                            | After project completion          |
| Construct a Retaining Wall on the South Side of SR 12E  |                         | Project proponent                            | Design                            |
| <b>Plant Species</b>  |                         |  |                                   |
| Conduct Preconstruction Surveys for Special-Status Plants   |                         | Project proponent                            | Prior to construction             |
| Compensate for Loss of Special-Status Plants  |                         | Project proponent                            | Prior to construction             |
| <b>Animal Species</b>   |                         |  |                                   |
| Conduct Clearance Surveys for Western Pond Turtle   |                         | Project proponent or construction contractor | Immediately prior to construction |
| Conduct Preconstruction Nesting Bird and Raptor Surveys and Establish a No-Disturbance Buffer, if Necessary   |                         | Project proponent or construction contractor | Immediately prior to construction |
| Conduct Preconstruction Surveys for Active Burrowing Owl Burrows and Implement the California Department of Fish and Game Guidelines for Burrowing Owl Mitigation, if Necessary | Permit                  | Project proponent or construction contractor | Immediately prior to construction |
| Compensate for Loss of Burrowing Owl Nesting Habitat  | Compensatory mitigation | Project proponent                            | After project completion          |

| Avoidance, Minimization, and/or Mitigation Measures  | Implementation Means    | Responsible Party                            | Timing                           |
|--|-------------------------|--|----------------------------------|
| Conduct Preconstruction Nesting Surveys for Northern Harrier in the Annual Grassland Habitat North of SR 12W         |                         | Project proponent or construction contractor | After project completion         |
| Prevent Swallows from Nesting Adjacent to New Bridge Construction  |                         | Project proponent or construction contractor | After project completion         |
| Conduct Preconstruction Surveys for Roosting Bats in Mature Trees  |                         | Project proponent or construction contractor | After project completion         |
| Prevent Contaminants and Hazardous Materials from Entering the Stream Channel  | Permit                  | Construction contractor                      | During construction              |
| Restrict In-Water Work to Avoid Special-Status Fish Spawning Seasons   | Permit                  | Construction contractor                      | During construction              |
| Minimize Impacts on Creek Channels   | Standard specifications | Construction contractor                      | During construction              |
| Provide Alternate Migration Corridor through Creek Channels  | Permit                  | Construction contractor                      | During construction              |
| Minimize Noise Impacts on Special-Status Fish Species  | Permit                  | Construction contractor                      | During construction              |
| Avoid Potential Fish Spawning Habitat  | Permit                  | Construction contractor                      | During construction              |
| Implement Culvert Retrofit at the SR 12 Crossing on Ledgewood Creek  |                         | Project proponent                            | Design                           |
| <b>Threatened and Endangered Species</b>   |                         |  |                                  |
| Compensate for the Loss of Contra Costa Goldfields   | Compensatory mitigation | Project proponent                            | After project completion         |
| Conduct Protocol-level Surveys for Showy Indian Clover   | Permit                  | Project proponent                            | Prior to construction            |
| Avoid and Minimize Potential Direct and Indirect Disturbance of Populations of Showy Indian Clover                   | Permit                  | Construction contractor                      | During construction              |
| Conduct Surveys for Larval Host Plants for Callippe Silverspot Butterflies   | Permit                  | Project proponent                            | Prior to construction            |
| Minimize Potential Direct and Indirect Disturbance of Populations of Callippe Silverspot Butterflies                 | Permit                  |  | During construction              |
| Compensate for Direct and Indirect Effects on Callippe Silverspot Butterflies  | Permit                  | Project Proponent                            | After project completion         |
| Avoid and Minimize Potential Indirect Disturbance of Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Habitat | Permit                  | Construction contractor                      | During construction              |
| Compensate for Loss of Direct and Indirect Impacts on Vernal Pool Fairy Shrimp or Vernal Pool Tadpole Shrimp Habitat | Compensatory mitigation | Project proponent                            | After project completion         |
| Minimize Direct and Indirect Effects on Valley Elderberry Longhorn Beetle  | Permit                  | Construction contractor                      | During construction              |
| Compensate for Direct Effects on Valley Elderberry Longhorn Beetle Habitat   | Compensatory mitigation | Project proponent                            | After project completion         |
| Conduct Preconstruction Surveys and Monitor Construction Occurring Near Potential California Red-Legged Frog Habitat | Permit                  | Project proponent/ Construction contractor   | Prior to and during construction |

| Avoidance, Minimization, and/or Mitigation Measures                                    | Implementation Means    | Responsible Party                             | Timing                           |
|--|-------------------------|---|----------------------------------|
| Compensate for Loss and Disturbance of California Red-Legged Frog Habitat              | Compensatory mitigation | Project proponent                             | After project completion         |
| Conduct Protocol-level Surveys for California Tiger Salamander                         | Permit                  | Project proponent                             | Prior to construction            |
| Avoid and Minimize Potential Disturbance of Populations of California Tiger Salamander | Permit                  | Project proponent/<br>Construction contractor | Prior to and during construction |
| Compensate for Loss of Swainson's Hawk Foraging Habitat                                | Compensatory mitigation | Project proponent                             | After project completion         |
| <b>Invasive Species</b>  |                         |   |                                  |
| Avoid the Introduction and Spread of Invasive Plants                                   | Standard specification  | Construction contractor                       | During construction              |
| <b>Native Trees</b>  |                         |   |                                  |
| None   |                         |   |                                  |
| <b>Suisun Marsh Secondary Management Area</b>  |                         |   |                                  |
| None   |                         |   |                                  |

### **CEQA Mitigation Measures**

To mitigate impact to important farmland (those lands classified as “prime farmlands”), long-term land use restrictions such as agricultural conservation easements shall be obtained over Prime Farmland within Solano County at a 1:1 ratio (1 acre protected for every 1 acre directly affected). Lands under an agricultural conservation easement are considered to have higher agricultural value than other agricultural land in the project area. As such, the mitigation for the loss of lands under easement will be implemented at a higher ratio of 1.25:1.

Refer to mitigation presented above for conversion of agricultural land to non-agricultural uses.





## Appendix K Glossary

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# Appendix K Glossary

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**Action** – An “action,” a federal term, is the construction or reconstruction, including associated activities, of a transportation facility. For the purposes of this Handbook, the terms “project”, “proposal” and “action” are used interchangeably unless otherwise specified. An action may be categorized as a “categorical exclusion” or a “major federal action.”

**Area of Potential Effect** – A term used in Section 106 to describe the area in which historic resources may be affected by a federal undertaking.

**Attainment Area** – An area that meets air quality standards.

**Auxiliary Lane** – A traffic lane downstream of an entrance ramp to accommodate merging traffic, a lane upstream of an exit ramp to accommodate diverging traffic, or a lane between two closely spaced interchanges to accommodate weaving traffic.

**Beneficial Use** – A use of a natural water resource that enhances the social, economic, and environmental well-being of the user. Twenty-one beneficial uses are defined for the waters of California, ranging from municipal and domestic supply to fisheries and wildlife habitat.

**Best Management Practice (BMP)** – Any program, technology, process, operating method, measure, or device that controls, prevents, removes, or reduces pollution.

**California Department of Fish and Game (DFG)** – The state agency that manages California’s wildlife and plant resources.

**California Department of Transportation (Department)** – Responsible for planning, designing, building, operating, and maintaining California’s state highway system.

**California Environmental Quality Act (CEQA)** – A California law that requires state, local, and other agencies to evaluate the environmental implications of their actions.

**California Register of Historic Resources (CRHR)** – A comprehensive listing of documented cultural resources that meet the criteria for a “historical resource” (as defined in the California Administrative Code), maintained by the State Office of Historic Preservation. Any historic property determined eligible for listing in the National Register of Historic Places qualifies automatically for the CRHR.

**Candidate Species** – Any species of fish, wildlife, or plant which has been determined to be candidates for listing under Section 4 of the Endangered Species Act of 1972 (amended).

**Clean Water Act** – A federal law that regulates the discharge of pollutants into waters of the United States.

**Cooperating Agency** – Under NEPA, any agency other than the lead agency which has jurisdiction by law of special expertise with respect to any environmental impact involved in a



proposal for any action significantly affecting the human environment. Under CEQA, the term “responsible agency” is used.

**Corridor** – A strip of land between two termini within which traffic, topography, environment, and other characteristics are evaluated for transportation purposes.

**Criteria air pollutant** – A pollutant that has standards that have been established to meet specific public health and welfare criteria.

**Cultural Resources** – Archaeological and historic resources, including buildings, sites, districts, structures, or objects having historical, architectural, archaeological, or cultural association.

**Cumulative Impact** – The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.

**dBA** – A sound level in decibels, measured with a sound level meter, having metering characteristics and frequency weighting specified in American National Standard Specifications for sound level meters (ANSI S1.4-1971). It is common to refer to numerical units of an A-weighted sound level as “dBA”.

**Decibel** – A numerical expression of the relative loudness of a sound.

**Draft Environmental Impact Report (DEIR)** – A draft report, circulated for public review, that analyzes potential environmental impacts of a proposed project in compliance with CEQA.

**Draft Environmental Impact Statement (DEIS)** – A draft report, circulated for public review, that analyzes environmental effects of a proposed project in compliance with NEPA.

**Encroachment (floodplain)** – An action within the limits of the 100-year floodplain.

**Endangered Species** – A plant or animal species that is in danger of extinction throughout all or a significant portion of its range.

**Environmental Document** – A draft or final Environmental Impact Report (EIR), Environmental Impact Statement (EIS), Finding of No Significant Impact (FONSI), Environmental Assessment (EA), Initial Study (IS) or Negative Declaration (ND).

**Equivalent Sound Level ( $L_{eq}$ )** – A measure of sound energy over a period of time, or a sound level which, in a stated period of time, would contain the same acoustical energy as the time-varying sound during the same period.

**Erosion** – The wearing away of the land surface by running water, wind, ice, or other geologic agents.

**4(f) Resources** – Resources protected by Section 4 (f) of the Department of Transportation Act. These include public park and recreation lands, wildlife and waterfowl refuges, and cultural resources eligible for listing or listed on the National Register.

**Federal Highway Administration (FHWA)** – The federal agency that coordinates highway transportation programs in cooperation with states and other partners. It provides federal financial assistance to the states to construct and improve the National Highway System, urban and rural roads, and bridges.

**Federal Register** – A federal publication that provides official notice of Federal administrative hearings and issuance of proposed and final federal administrative rules and regulations.

**Floodplain** – The part of the ground surface inundated with water on a recurring basis, usually associated with the one percent recurrence interval (100-year) flow.

**Freeway** – A divided arterial highway with full control of access and with grade separations at intersections.

**General Plan** – A document that contains policies used to implement the goals of a community.

**Geomorphic** – Of the earth's surface configuration.

**Geomorphic Province** – A topographic-geologic grouping of land based on landforms, rock types, and geologic structure.

**Groundwater** – Water beneath the earth's surface between saturated soil and rock that supplies wells and springs.

**Habitat** – The place or type of site where a plant or animal naturally or normally lives and grows.

**High Occupancy Vehicle (HOV)** – Vehicles occupied by two (sometimes three) or more persons such as carpools and busses.

**High Occupancy Vehicle Lane (HOV Lane)** – A system of exclusive lanes signed and striped for use by vehicles with multiple occupants (two or more, or three or more, persons). HOV lanes are designed on roadways to reduce traffic congestion, improve safety, reduce fuel consumption, and improve air quality.

**Historic Property** – Any prehistoric or historic sited, building, structure, object, or district included in or eligible for inclusion in the National Register of Historic Places (NRHP) maintained by Secretary of the Interior.

**Hot Spot** – A location where air pollutant emissions from specific sources may expose individuals to elevate risks of adverse health effects.

**Inversion** – A layer of warm air over cooler air that traps air pollution below it.

**Intactness** – The visual integrity of the natural and built landscape.

**$L_{eq}$**  – A unit used for evaluation of sound impacts; the measurement of the fluctuating sounds level received by a receptor averaged over a time interval (usually one hour).

**Landscape Unit** – A geographically distinct portion of an area that has a particular visual characteristics.

**Lead Agency** – The public agency which has primary responsibility for carrying out or approving a project and preparing the environmental document.

**Level of Service (LOS)** – The qualitative description of operating level of an intersection or roadway segment based on delay and maneuverability. It can range from “A,” representing free flow conditions, to “F,” representing gridlock.

**Liquefaction** – The loss of strength that can occur in loose, saturated soil during or following seismic shaking. This condition can produce a number of ground effects, including lateral spreading boils, ground lurching, and settlement of fill material.

**Maintenance Area** – An area that had previously been designated a non-attainment area, but now meets applicable air quality standards.

**Metropolitan Transportation Commission (MTC)** – The transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area. It functions as both the region’s metropolitan transportation planning agency and as the region’s metropolitan planning organization – state and federal designations, respectively.

**Migratory Bird Act of 1918** – Reflects agreements involving the United States, Great Britain (for Canada), Mexico, Japan, and the former Soviet Union to protect migratory bird populations.

**Mitigation** – Compensation for an impact by replacement or provision of substitute resources or environments. Measures taken to minimize adverse environmental impacts. Mitigation could reduce the magnitude and extent of an impact from a level of significance to a level of insignificance.

**National Environmental Policy Act (NEPA)** – The United States’ basic national charger for protection of the environment. It established policy, sets goals, and provides means for carrying out the policy.

**National Historic Preservation Act of 1966 (NHPA)** – The primary federal law pertaining to protection of cultural resources.

**National Pollution Discharge Elimination System (NPDES) permit** – A permit required by the Regional Water Quality Control Board that is required if more than one acre of original ground is graded to prevent harmful pollutants from being washed by storm water runoff into local water bodies. One condition of this permit is that the contractor must submit a Storm Water Pollution Prevention Plan (SWPPP), which is similar to the Water Pollution Control Plan required by Caltrans’ Standard Specification 7-1.01G.

**National Register of Historic Places (NRHP)** – A federal listing of historic resources protected under the National Historic Preservation Act of 1966.

**Native American Heritage Commission (NAHC)** – In California, the NAHC consists of nine members appointed by the Governor with the consent of the Senate. The NAHC is authorized and charged to preserve and protect Native American cemeteries, sacred sites, and traditional cultural properties. One function of the NAHC is to identify the Most Likely Descendant (MLD) whenever Native American human remains are discovered, except on tribal or federal land in California.

**Non-attainment Area** – An area that does not meet air quality standards.

**Noise Abatement Criteria (NAC)** – Noise level standards above which noise reducing actions should be considered.

**Notice of Availability** – A formal public notice under NEPA announcing the availability of a completed EA, DEIS or FEIS. Such a notice is to be published in local newspapers. For EISs, publication of such notice in the Federal Register is also required.

**Notice of Completion** – The CEQA notice submitted to the State Clearinghouse when an EIR is completed.

**Notice of Determination (NOD)** – A “Notice of Determination” is a formal written notice under CEQA filed by a lead state agency when approving any project subject to the preparation of an ND or EIR.

**Notice of Intent (NOI)** – A notice that an Environmental Impact Statement (EIS) will be prepared and considered. The NOI is published in the Federal Register by the Lead Agency. The CEQA equivalent of this is called a Notice of Preparation.

**Porter-Cologne Water Act of 1969** – A California law that provides a framework for protecting the quality of waters in California for the use and enjoyment of the people of the state.

**Practicable** – An action that is possible after taking into consideration cost, existing technology and logistics in light of overall project purposes.

**Project** – CEQA (Section 21065) defines a “project” as an activity which may cause either a direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment, and which is any of the following:

- An activity directly undertaken by any public agency.
- An activity undertaken by a person which is supported, in whole or in part, throughout contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
- An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.



**Receptors** – Term used in air quality and noise studies that refers to houses or businesses that could be affected by a project.

**Record of Decision (ROD)** – A formal written statement, required under NEPA, wherein a federal lead agency must present the basis for its decision to approve a selected project alternative, summarize mitigation measures incorporated into the project, and document any required Section 4(f) approval.

**Regulatory Agency** – An agency that has jurisdiction by law.

**Responsible Agency** – A “public agency other than the lead agency which has responsibility for carrying out or approving a project” (PRC 21069). All public agencies which have discretionary approval power over the project (14 CCR 15381). State and local public agencies that have discretionary authority to issue permits, for example, fall into this category.

**Right-of-way** – A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

**Riparian** – Pertaining to the banks and other adjacent terrestrial (as opposed to aquatic) environs of freshwater bodies, watercourses, estuaries, and surface-emergent aquifers, whose transported freshwater provides soil moisture sufficient in excess of that available through local precipitation to potentially support the growth of vegetation.

**RTP** – Regional Transportation Plan, prepared by the regional agency responsible for transportation planning and funding. In Solano County, the RTP is prepared by the Metropolitan Transportation Commission to identify transportation improvement priorities.

**San Francisco Bay Regional Water Quality Control Board (RWQCB)** – An agency with the California Environmental Protection Agency that is responsible for regulating pollutants to protect the water resources of the Bay Area.

**Scoping** – The process of determining the scope, focus, and content of an EIR/S.

**Section 106** – This section of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings.

**Special Status Species** – Any species of fish, wildlife, or plant that is officially listed as rare, threatened, endangered, or candidate for rare, threatened, or endangered species listing under the state or federal Endangered Species Acts.

**State Implementation Plan** – A plan for attaining national ambient air quality standards required by the Clean Air Act.

**State Historic Preservation Officer (SHPO)** – The official appointed or designated pursuant to Section 101 (b)(1) of the National Historic Preservation Act to administer the State historic

preservation program. In California, the SHPO manages the Office of Historic Preservation (OHP) and serves as executive secretary of the State Historical Resources Commission (SHRC).

**State Transportation Implementation Program (STIP)** – Program updated every two years describes the California Transportation Commission’s priorities for improvement on and off the state highway system.

**Storm Water Pollution Prevention Plan (SWPPP)** – A plan to reduce the potential impacts of erosion and sedimentation from construction.

**Surface Runoff** – Water that runs off streets and land and enters a body of water.

**Threatened Species** – A species that is likely to become endangered in the foreseeable future in the absence of special protection.

**Transportation Management Plan (TMP)** – A plan to manage traffic during construction of projects to reduce congestion.

**Transportation System Management (TSM)** – Changes to existing roadways and services, such as geometric and striping improvements and expanded transit service, to improve traffic operations.

**Undertaking** – A project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including: those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; those requiring a federal permit, license or approval; and those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency. Federal agencies must ensure that their undertakings comply with Section 106 of the National Historic Preservation Act.

**Unity** – The visual cohesion and compositional harmony of the viewshed.

**U.S. Army Corps of Engineers (ACOE)** – Federal agency with jurisdiction over waters of the United States.

**U.S. Environmental Protection Agency (EPA)** – The federal agency responsible for maintaining environmental quality, including air quality, noise, and hazardous waste management.

**U. S. Fish and Wildlife Service (USFWS)** – The federal agency that administers the federal Endangered Species Act and is involved in protection of fish and wildlife habitat, including wetland areas.

**Vividness** – The visual power or memorability of landscape components as they combine in striking an distinctive visual patterns.

**Waters of the United States** – As defined by the ACOE in 33 Code of Federal Regulations 328.3(a):

1. All waters that are currently used , or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use degradation or destruction of which could affect interstate commerce, including any such waters:
  - i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
  - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - iii. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundment of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs 1-4;
6. The territorial seas; and
7. Wetlands adjacent to waters (waters that are not wetlands themselves) identified in paragraphs 1-6.

**Watershed** – The point of high ground dividing different drainage systems.

**Weaving** – The crossing of traffic streams, moving in the same general direction, accomplished by merging and diverging.

**Wetlands** – According to regulations of the U.S. Army Corps of Engineers, wetlands are areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, under normal conditions, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and similar areas and are subject to protection under Executive Order 11990 and Section 404 of the Clean Water Act.

## Appendix L Responses to Comments

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# Appendix L Responses to Comments

I-80/I-680/SR12 comments received on the Draft EIR/EIS.

**Table L-1. List of Commenters**

| Comment Number                               | Commenter   | Date     |
|--|---|----------|
| <b>Agency and Individual Comment Letters</b> |   |          |
| 1  | Neal Johnson  | 08/17/10 |
| 2  | Edgar V. Salire, P.E.   | 08/29/10 |
| 3  | Lynn J. Zhang   | 09/07/10 |
| 4  | Steven Kays   | 09/21/10 |
| 5  | Jessica Davenport, Coastal Planner, State of California, San Francisco Bay Conservation and Development Commission                        | 10/01/10 |
| 6  | Gregor Blackburn, CFM, Branch Chief, Floodplain Management and Insurance Branch, U.S. Department of Homeland Security, FEMA               | 09/29/10 |
| 7  | Nicole Byrd, Executive Director, Solano Land Trust  | 10/05/10 |
| 8  | Richard Wirth, Assistant Civil Engineer, Solano Irrigation District   | 10/06/10 |
| 9  | Justin Hopkins, E.I.T., Assistant Civil Engineer, Solano Irrigation District  | 10/07/10 |
| 10   | John Futini   | 09/11/10 |
| 11   | Paul Wiese, Engineering Manager, Solano County, Department of Resource Management, Public Works Engineering                               | 10/08/10 |
| 12   | Jackie Kepley   | 10/11/10 |
| 13   | Jeff Dittmer  | 10/11/10 |
| 14   | Dee Swanhuysen, North Bay Trail Director, Bay Area Ridge Trail Council  | 10/11/10 |
| 15   | Andrea Meier, Sr. Regulatory Project Manager, San Francisco District, U.S. Army Corps of Engineers  | 10/14/10 |
| 16   | Cay C. Goude, Assistant Field Supervisor, Endangered Species Program, United States Department of the Interior, Fish and Wildlife Service | 10/18/10 |
| 17   | George R. Hicks, Public Works Director, City of Fairfield, Public Works Department  | 10/11/10 |
| 18   | Michael Jaeger and Bob McHugh, Jaeger McHugh & Company, LLC   | 10/15/10 |
| 19   | Connell Dunning, Transportation Team Supervisor, Environmental Review Office, United States Environmental Protection Agency               | 10/18/10 |
| 20   | Kim VanGundy, Fairfield-Suisun Unified School District  | 10/26/10 |
| 21   | Brendan Thompson, Environmental Specialist, California Regional Water Quality Control Board   | 10/27/10 |
| <b>Public Meeting Comments</b>               |   |          |
| 22   | Manoj Sahni, Comment Sheet  | 09/23/10 |
| 23   | Woody Darnelle, SuperStore Ind. Sunnyside Farms, Comment Sheet  | 09/23/10 |
| 24   | Lesley Brunner, HOA Green Valley Lake, Comment Sheet  | 09/23/10 |
| 25   | Linda Mellor, Comment Sheet   | 09/23/10 |
| 26   | Walter Permann, Oral Comment  | 09/23/10 |
| 27   | Michelle Valine, Oral Comment   | 09/23/10 |
| 28   | Pam Sahni, Oral Comment   | 09/23/10 |

**Letter 1**

nealjn@comcast.net

08/17/2010 01:33 PM

To            howell\_chan@dot.ca.gov  
CC  
Subject      I-80/I-680/SR 12 interchange

Dear Sir,

I support alternative B, with the following changes in the Western Segment (see below):

Direct SR 12 West traffic to Red Top Road Eliminate existing partial interchange of SR 12 West with I-80 Eliminate weave to Green Valley Road ramps Alter connections with Business Center Drive and SR 12 Widen SR 12/Red Top Road to 4 lanes to new interchange with I-680 Give Red Top Road state highway status between I-80 and I-680 (possibly SR 612)

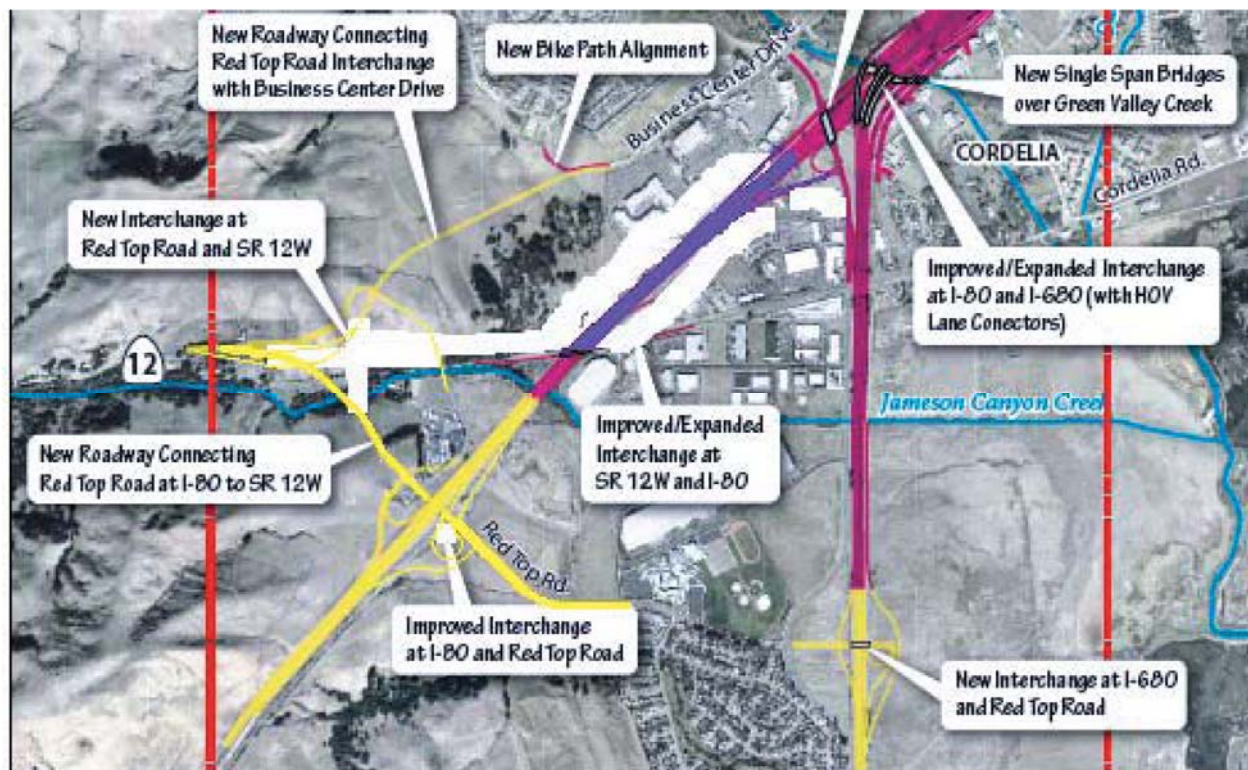
Provide loop ramp for EB SR 12 for direct access to I-80 east Provide slant ramp for WB SR 12 for direct access from I-80 west

(Embedded image moved to file: pic00267.bmp) I believe that these changes will reduce costs and provide for better traffic flow. Thank you for your consideration of these changes.

Sincerely,

Neal Johnson

1-1





**Comment Letter 1, Neal Johnson, 08/17/10**

**Response to Comment 1-1**

Commenter suggests reconfiguring the western end of Alternative B by realigning SR 12W to the south and connecting it to I-80 at a combined I-80/SR12W/Red Top Road interchange, and then improving Red Top Road between I-80 and I-680, potentially giving it a state highway designation.

It is correct to indicate that an eastbound loop on-ramp at a combined I-80/SR 12W/Red Top Road interchange would eliminate the Alternative B proposed weave between the eastbound SR 12W connector to eastbound I-80 and the eastbound I-80 off ramp to Green Valley Road.

However there are disadvantages to this suggestion as follows:

- Connecting SR 12W to I-80 at Red Top Road would result in a flat skew over the railroad tracks and over Jameson Creek, in large part due to the large radius curve necessary to meet the minimum design criteria for high speed highways and freeways. This alignment would result in significant higher cost and result in significantly greater environmental impacts than with the Alternative B alignment in the Draft EIR/EIS. The proposed SR 12W/Red Top Road/Business Center Drive interchange would be relocated from the present planned location (north of the railroad tracks and Jameson Creek) to meet this new alignment, placing the realigned interchange on top of the railroad tracks and Jameson Creek, further increasing costs and environmental impacts.
- The Department and FHWA have repeatedly opposed combining local and freeway-to-freeway movements within the same interchange unless there were no other feasible alternative. The current Alternative B is a feasible alternative with less impact and lower cost.
- With the commenter's suggested alternative revision the eastbound movement on ramp to I-80 would be a combination of the eastbound SR 12W to eastbound I-80 traffic, the eastbound SR 12W to eastbound I-80/Green Valley Road off ramp traffic and the eastbound I-80/Red Top Road on ramp traffic. The total projected 2035 PM peak hour volume of these three movements is 3,630 vehicles per hour. Due to the regional nature of SR 12W, a high percentage of those trips 5–6% is truck traffic. A loop ramp connection, even a two-lane loop ramp connection could not accommodate that volume, particularly when the ramp is metered.

**Letter 2**

Edgar Salire <philipizzy@yahoo.com>

08/29/2010 07:55 PM

To            howell\_chan@dot.ca.gov  
CC  
Subject      Comments Draft EIR/EIS I-80/I-680/SR12

I live on Red Top Road across Rodriguez High School. I believe the proposed Red Top Road on- and off-ramps on I-80 and I-680 will result in congestion along Red Top Road and local roads, not counting the environmental pollution it may cause in the immediate area. Caltrans should exhaust other alternatives to avoid this potential problem to the residents of Red Top Road.

Edgar V. Salire, P.E.

| 2-1  
| 2-2  
| 2-3

**Comment Letter 2, Edgar V. Salire, P.E., 08/29/10**

**Response to Comment 2-1**

The volumes along Red Top Road increase in all future cases: No Build, Full Build (Alternatives B and C) and the respective fundable first phase projects (Alternative B, Phase 1 and Alternative C, Phase 1). Traffic would be worse on Red Top under No Build conditions in 2035 than with the project because more traffic would divert to local roadways to avoid congestion on I-80. Please refer to response to comment 12-2 for a more detailed discussion of projected traffic on Red Top Road.

**Response to Comment 2-2**

Traffic along Red Top Road would not increase over the No Build alternative, and therefore air quality and noise impacts would also not be increased over No Build conditions. The Draft and Final EIR/EIS present CO modeling at affected ramps and intersections, and receptors would not be exposed to pollution concentrations exceeding regulatory thresholds (see Section 3.2.6 and Table 3.2.6-3). See response to comment 2-1 above.

**Response to Comment 2-3**

As discussed in Section 2.5 of the Draft EIR/EIS, a total of 12 alternatives and variations were examined in initial screening stages of project development. Four alternatives were carried forward to a second level screening and two alternatives were evaluated in detail in the Draft EIR/EIS, Alternative B and Alternative C.

**Letter 3**

"Zhang, Lynn J." <LJZhang@SolanoCounty.com>

09/07/2010 11:28 AM

To <Howell\_chan@dot.ca.gov>  
CC  
Subject I-80 project

Hello Howell,

Thanks for the plan to improve I-80/680 and SR 12.

I do appreciate a railway plan directly link San Francisco and Solano ( i.e Caltrain, a BART station in Fairfield). It will make Solano county more accessible to the San Francisco economic center, attract more quality residents, more business, and improve the county financial well being significantly.

Thanks and have a nice day...

Lynn J. Zhang

GIS Analyst  
Solano County, GIS Service  
Ph: 707-784-3060  
Fax: 707-784-3467  
E-mail: ljzhang@solanocounty.com

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| 3-1

| 3-2



***Comment Letter 3, Lynn J. Zhang, 09/07/10***

***Response to Comment 3-1***

Comment noted.

***Response to Comment 3-2***

The I-80/I-680/SR 12 Interchange Improvement project does not include rail improvements. However, AMTRAK capitol corridor provides direct rail service.

Letter 4

Steven Kays <stevenkays@earthlink.net>

09/21/2010 01:09 PM

To Howell\_chan@dot.ca.gov  
CC  
Subject what will Be The Real 80 Interchange Result?

Dear Howell Chan,

Could you kindly answer these questions about the new I-80 interchange proposals? I look forward to working with you. Tell me how i can help get the needed changes implemented.

1. Must central Fairfield become less accessible via the new highway ramp locations? | 4-1
2. Increasing driving time to downtown Fairfield from the highway ramps, means fewer diners and shoppers coming downtown. What effect will the new ramps have on reducing downtown spending? | 4-2
3. Revitalizing central Fairfield creates more jobs. The improved economic vitality of central Fairfield will increase the tax revenue. Without this expected tax revenue, will we have to further raise taxes? | 4-3
4. When will the great designs for revitalizing West Texas Street be openly shown in public meetings? | 4-4
5. Where did the monies set aside for revitalizing West Texas Street disappear to before the recession? | 4-5
6. The city promised to start revitalizing West Texas Street by 2000. Will the city set a new deadline? Will the businesses asked to invest in central Fairfield as part of the stalled program be compensated for the city not keeping its promise to fix the area? | 4-6
7. Will downtown businesses continue paying the extra downtown business tax, after the highways take away part of their customer base? | 4-7

Can we be candid? Hope i got your attention.

Might this be resolved with team spirit? The majority agrees the I-80 interchange needs help. So let's compromise; and stop backstabbing. We look forward to working together..!

I posted these questions on FixFairfield.Blogspot.Org and the DailyRepublic's article on this topic today.

Cheers  
Steven Kays  
FixFairfield.Org  
(Div of CBC Services, LLC)  
434-8000

**Comment Letter 4, Steven Kays, 09/21/10**

**Response to Comment 4-1**

No on- or off-ramps will be relocated or removed in the central Fairfield area. Access to and from SR 12E at Beck and Pennsylvania Avenues will be improved. The project will result in no changes to the I-80/West Texas interchange. As such, the interchange project will not affect the accessibility of central Fairfield.

**Response to Comment 4-2**

The project will not increase driving time to downtown Fairfield from any highway. Downtown Fairfield is most easily accessible from I-80 via the West Texas interchange and from SR 12 via Pennsylvania Avenue. No improvements or changes are proposed to the West Texas interchange. A new SR 12/Pennsylvania interchange is proposed under both alternatives. Under no build conditions, the SR 12/Pennsylvania off-ramp is projected to operate at LOS D in the AM peak hours in 2015 and LOS F in the PM peak hours in 2015 and in both AM and PM peak hours in 2035. Under the first phase of Alternative B, the LOS would decrease in the AM peak hours. In all other scenarios the LOS would improve or remain the same. This indicates that access to downtown Fairfield would actually be improved by the project, particularly in the long run, as the off-ramp would operate at LOS A or B for either alternative. Additionally, as indicated in Tables 3.1.6-6 through 3.1.6-9 of the Draft EIR/EIS and updated Tables 3.1.6-6 and 3.1.6-11 of the Final EIR/EIS, both alternatives, and their fundable first phases reduce congestion, travel time, and delays and increase speeds on SR 12E.

**Response to Comment 4-3**

While the project purpose and need is not directly related to revitalizing central Fairfield, the project would result in benefits to the city by relieving congestion on I-80, I-680 and State Route 12. The project would improve access to and from central Fairfield by widening State Route 12 East and constructing interchanges at both Beck and Pennsylvania Avenues. This could indirectly improve the economic viability of central Fairfield. The project does not involve increases in local taxes.

**Response to Comment 4-4**

The project purpose and need does not involve revitalizing West Texas Street but may indirectly benefit downtown Fairfield as discussed above in response to comment 4-3.

**Response to Comment 4-5**

See response to comment 4-4 above.

**Response to Comment 4-6**

See response to comment 4-4 above.

**Response to Comment 4-7**

See response to comments 4-1, 4-2, and 4-3.



Letter 5

October 1, 2010

Howell Chan  
Caltrans District 4  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660

VIA EMAIL: Howell\_chan@dot.ca.gov

SUBJECT: I-80/I-680/SR 12 Interchange Project; BCDC Inquiry  
File Nos. MC.MC.1001.01 and SL.PH.7214.1

Dear Mr. Chan:

Thank you for the opportunity to comment on the Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) for the I-80/I-680/SR 12 Interchange Project, received in our office on August 16, 2010.

Although the Commission has not reviewed the Draft EIR/EIS, the staff comments discussed below are based on the Commission's law, the McAteer-Petris Act, the Commission's *San Francisco Bay Plan* (Bay Plan), the Suisun Marsh Preservation Act (Marsh Act), the *Suisun Marsh Protection Plan* (Marsh Plan), the Commission's federally-approved management plan for the San Francisco Bay, and the federal Coastal Zone Management Act (CZMA).

**Jurisdiction.** The following provides information about BCDC's jurisdiction and authority to discuss in the draft EIR. The Commission has "Bay" jurisdiction over all areas of the Bay subject to tidal action, which defines the location of the shoreline. The shoreline is located at the mean high tide line, except in marsh areas, where the shoreline is located at five feet above mean sea level. The Commission also has jurisdiction over managed wetlands, salt ponds, and the tidal portion of certain waterways, as identified in the McAteer-Petris Act. Additionally, the Commission has "shoreline band" jurisdiction over an area 100 feet wide, landward of and parallel to the shoreline.

In accordance with provisions of the McAteer-Petris Act, the Commission has designated certain areas within the 100-foot shoreline band for specific priority uses for ports, water-related industry, water-oriented recreation, airports and wildlife refuges. The Commission is authorized to grant or deny permits for development within these priority use areas based on appropriate Bay Plan development policies pertaining to the priority use.

The Marsh Act grants the Commission permitting authority in the primary management area of the Suisun Marsh, including marshes, managed wetlands, levees, waterways, and certain lowland grasslands below the ten-foot contour line. The Marsh Act also established a secondary management area of primarily upland grasslands and cultivated lands to serve as a buffer between the primary management area and developed lands outside the Marsh. Within

5-1



Howell Chan  
October 1, 2010  
Page 2

the secondary management area, local governments issue development permits pursuant to a Suisun Marsh local protection program component certified by the Commission. These permits can be appealed to the Commission.

Parts of the proposed project, specifically the elements located in the area east of I-680 from the Gold Hill Road overpass and north to Jameson Canyon Creek, fall within the secondary management area of the Suisun Marsh, which is protected by strict limitations on development, as noted in the Draft EIR/EIS. In addition, this portion of the project appears to overlap with the Gold Hills Unit of the Grizzly Island Wildlife Area, a wildlife refuge priority use area designated on Bay Plan Map 2.

5-1  
cont.

**Wildlife Refuge Priority Use Area.** One of the Bay Plan's Major Plan Proposals is to maintain wildlife refuges in diked historic baylands. The Bay Plan states, "Prime wildlife refuges in diked-off areas around the Bay should be maintained and several major additions should be made to the existing refuge system." The final EIR/EIS, should discuss whether any elements of the proposed project would be located within the wildlife priority land use area, how the proposed project is consistent with this designation, and whether approval of such improvements within the wildlife area have been approved by the California Department of Fish and Game.

5-2

**Suisun Marsh Preservation Act.** On page 2-22, the Draft EIR/EIS states that two project alternatives were rejected because they "would place a transportation facility within the Primary Suisun Marsh, which is prohibited by state law (the Suisun Marsh Preservation Act of 1974)." The Commission supports the decision to reject these alternatives.

5-3

**Suisun Marsh Local Protection Program.** As noted on page 3.1.1-13 of the Draft EIR/EIS, the Marsh Act requires Solano County to prepare and adopt a component of the Suisun Marsh local protection program (LPP) to implement the Marsh Act within the secondary management area. Please note that the Marsh Act was enacted in 1977, not 1997 as stated in the report. The Commission originally certified Solano County's LPP component in 1982 and certified an amended LPP component in 1999.

5-4

On page 3.1.1-12, the Draft EIR/EIS cites the 2008 Solano County General Plan's Suisun Marsh Policy Addendum. The Suisun Marsh Policy Addendum contains specific General Plan policies governing the Suisun Marsh that have been incorporated into the Solano County LPP certified by the Commission. It would be more appropriate to cite Solano County's certified LPP component.

5-5

**Transportation and Agriculture.** The Draft EIR/EIS cites Policy 1(e) and Policy 1(f) of the utilities, facilities and transportation policies of the 2008 Solano County General Plan's Suisun Marsh Policy Addendum. As noted above, the report should cite the certified LPP.

Utilities, Facilities and Transportation Policy 1(e) of the LPP states, in part, "New roadways (highways, primary and secondary roads) and rail lines that form barriers to movement of terrestrial wildlife should not be constructed in the Suisun Marsh or in adjacent uplands necessary to protect the Marsh except where such roadways and rail lines are necessary in the secondary management area for the operation of water-related industry..."

5-6

It is our understanding that the proposed project involves expansion of existing roadways in the secondary management area, rather than construction of new roadways. In that case, the following policy related to existing uses in the secondary management area would apply.

Howell Chan  
October 1, 2010  
Page 3

Agricultural Policy 3 of the Solano County LPP states, "Existing non-agricultural uses...on sites within the secondary management area should be allowed to continue if they are conducted so that they will not cause adverse impacts on the Suisun Marsh. Any future change in uses of these sites should be compatible with the preservation of the Suisun Marsh and its wildlife resources."

5-6  
cont.

Howell Chan  
October 1, 2010  
Page 4

In the final EIR/EIS, please discuss which policies apply and whether the proposed project would be consistent with these policies.

**Wildlife Habitat Management and Preservation and Water Quality.** In the Solano County component of the LPP, Wildlife Habitat Management and Preservation Policy 1 states, "The diversity of habitats in the Suisun Marsh and surrounding upland areas should be preserved and enhanced wherever possible to maintain the unique wildlife resource." Wildlife Habitat Management and Preservation Policy 2 states, "The Marsh waterways, managed wetlands, tidal marshes, seasonal marshes, and lowland grasslands are critical habitats for marsh-related wildlife and are essential to the integrity of Suisun Marsh. Therefore, these habitats deserve special protection."

5-7

Water Quality Policy 3 states, "Disruption or impediments to runoff and stream flow in the Suisun Marsh watershed should not be permitted if it would result in adverse effects on the quality of water entering the Marsh." Water Quality Policy 6 states, "Riparian vegetation in the immediate Suisun Marsh watershed should be preserved due to its importance in the maintenance of water quality and its value as Marsh-related wildlife habitat. Stream modification should only be permitted if it is proved necessary to ensure the protection of life and existing structures from floods and only the minimum amount of modification necessary should be allowed."

5-8

5-9

In the final EIR/EIS, please discuss whether the proposed project would be consistent with these policies.

**Sea Level Rise.** On page 4-41 of the Draft EIR/EIS, the Department notes that "all state agencies that are planning to construct projects in areas vulnerable to future sea level rise were directed to consider a range of sea level rise scenarios for the years 2050 and 2100 in order to assess project vulnerability and, to the extent feasible, reduce expected risks and increase resiliency to sea level rise. However, all projects that have filed a Notice of Preparation, and/or have funds programmed for construction in the next five years (through 2013), or are routine maintenance projects as of the date of Executive Order S-13-08 may, but are not required to, consider these planning guidelines."

Although none of the project area is within the Commission's permit jurisdiction, the Suisun Marsh map in the BCDC report (attached) shows that part the area of the proposed project along SR 12 is vulnerable to a 16-inch rise in sea level and a larger part of the area is vulnerable to a 55-inch rise. Please note that the BCDC maps of vulnerable areas do not account for existing shoreline protection or creek levees, and do not include the existing or future 100-year flood zones.

5-10

The final EIR should reference existing Bay Plan safety of fills findings and policies that anticipate the need for planning associated with sea level rise. The Safety of Fills findings recognize that "Bay water levels are likely to increase in the future because of a relative rise in sea level... Relative rise in sea level is the sum of: (1) a rise in global sea level and (2) land elevation change (lifting and subsidence) around the Bay." Additionally, Policy 6 states, "local governments and special districts with responsibilities for flood protection should assure that their requirements and criteria reflect future relative sea level rise and should assure that new structures and uses attracting people are not approved in flood prone areas or in areas that will become flood prone in the future, and that structures and uses that are approvable will be built at stable elevations to assure long-term protection from flood hazards." It is likely that the proposed structures would be expected to last until at least mid-century.

Howell Chan  
October 1, 2010  
Page 5

The final EIR should consider impacts of future sea level rise on several aspects of the proposed project, such as transportation and biological and cultural resources.

5-10  
cont.

Thank you for your consideration of our comments. If you have any questions regarding this letter please contact me by phone at (415) 352-3660 or email [jessicad@bcd.ca.gov](mailto:jessicad@bcd.ca.gov).

Sincerely,

JESSICA DAVENPORT  
Coastal Planner

Enc.

JD/gg

cc: Solano County Planning Department

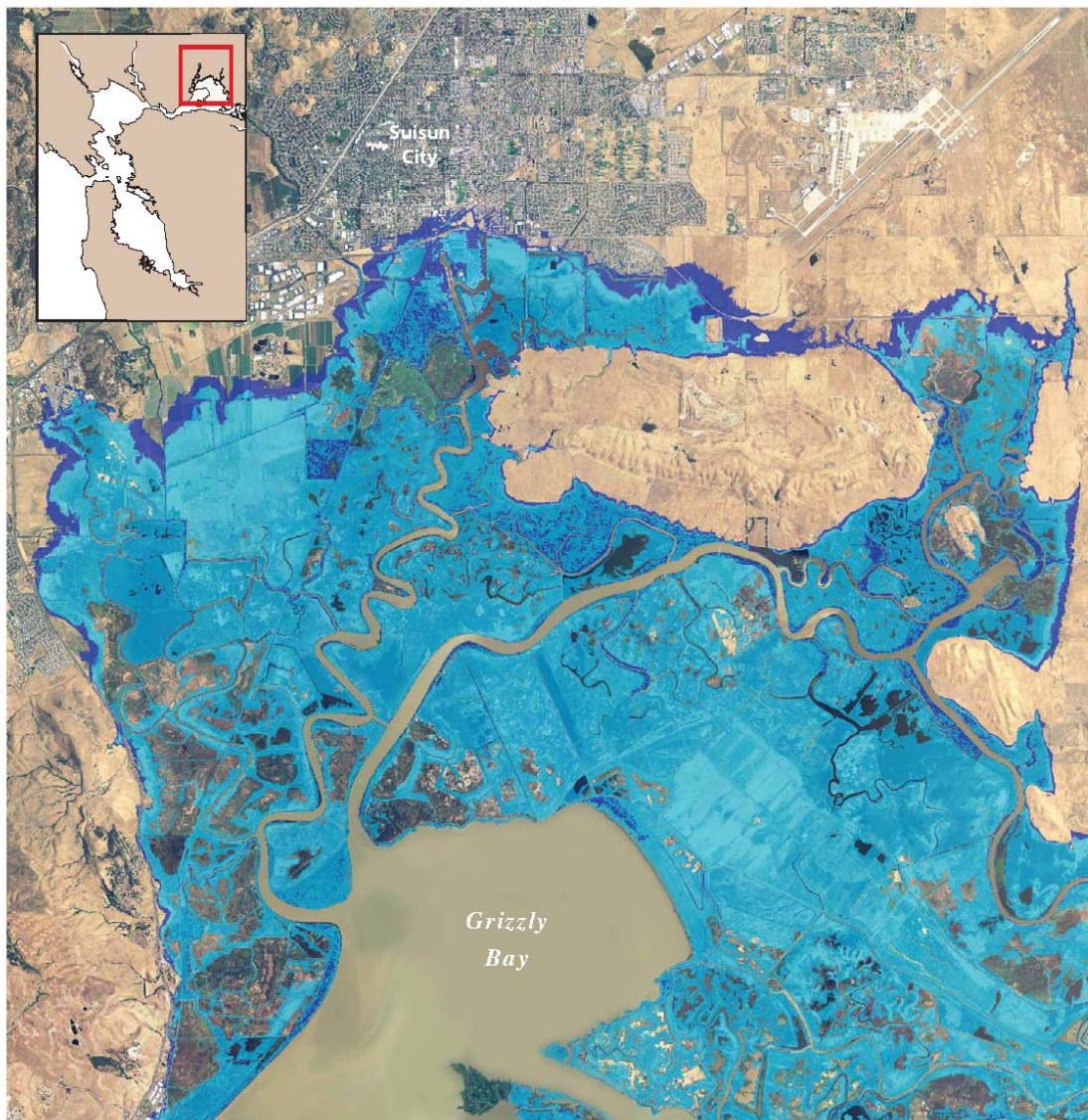




San Francisco Bay  
Conservation and Development Commission

## SHORELINE AREAS VULNERABLE TO SEA LEVEL RISE: SUISUN MARSH

- Area vulnerable to an approximate 16 inch sea level rise
- Area vulnerable to an approximate 55 inch sea level rise



SOURCE: Inundation data from Knowles, 2008. Additional salt pond elevation data by Siegel and Bachand, 2002. Aerial imagery is NAIP 2005 data.

DISCLAIMER: Inundation data does not account for existing shoreline protection or wave activity. These maps are for informational purposes only. Users, by their use, agree to hold harmless and blameless the State of California and its representatives and its agents for any liability associated with its use in any form. The maps and data shall not be used to assess actual coastal hazards, insurance requirements, or property values or be used in lieu of Flood Insurance Rate Maps issued by the Federal Emergency Management Agency (FEMA).

**Comment Letter 5, Jessica Davenport, Coastal Planner, State of California, San Francisco Bay Response to Conservation and Development Commission, 10/01/10**

**Response to Comment 5-1**

Comment noted. The EIR/EIS acknowledges that portions of the project would be constructed within the secondary management area (see Response 5-6 below). No part of the project would be within the Gold Hills unit of the Grizzly Island Wildlife area (see Response 5-2 below).

**Response to Comment 5-2**

No elements of the proposed project are located within a wildlife priority land use area. The closest wildlife area to the project is the Gold Hills Unit of the Grizzly Island Wildlife Area, which is on the east side of Ramsey Road, south of Red Top Road. The wildlife area is approximately 100 feet east of the proposed construction impact area along I-680. Ramsey Road is a physical barrier between the impact area and the wildlife area, and improvements to I-680 near the wildlife area would not cross Ramsey Road. Improvements to I-680, therefore, would not affect the wildlife area; and the project would be consistent with the primary land use area designation of the wildlife area. Because the wildlife area would not contain any improvements due to the project, approval by the California Department of Fish and Game would not be necessary.

**Response to Comment 5-3**

Comment noted.

**Response to Comment 5-4**

Changed 1997 to 1977 in footnote in Section 3.1.1 of the Final EIR/EIS.

**Response to Comment 5-5**

The Addendum to the LPP contains the most recent and applicable policies pertaining to the project alternatives. The Addendum incorporates the original LPP (1982) and prior amendments made in 1999. Because the Addendum to the LPP is more inclusive, that document is referenced in the Draft EIR/EIS.

**Response to Comment 5-6**

See response to comment 5-5. The Department disagrees with the claim that Agricultural Policy 3 of the Solano County LPP would apply. This policy deals with “existing non-agricultural uses within the secondary management area.” Currently I-680 is not located within the secondary management area. Therefore portions of the project that would be constructed within the secondary management area would constitute a “new” non-agricultural use within the secondary management area. Therefore, the more applicable policy is the General Plan’s Suisun Marsh Policy Addendum’s “Utilities, Facilities, and Transportation” Policy 1(e).

Both full build alternatives would involve constructing a new interchange at I-680/Red Top Road and realigning Ramsey Road. However, these improvements would not directly or indirectly affect the primary marsh. Because the new roadway facilities would be in close proximity and

adjacent to existing I-680, the project would not form a new barrier to terrestrial wildlife movement, as it is adjacent to an existing road and does not isolate any new area.

**Response to Comment 5-7**

The following text has been added to Section 3.1.1 of the Final EIR/EIS.

“The County component of the Marsh Protection Plan contains several Wildlife Habitat Management and Preservation, and Water Quality policies that would pertain to the project. These include:

**Wildlife Policy 1**

The diversity of habitats in the Suisun Marsh and surrounding upland areas should be preserved and enhanced wherever possible to maintain the unique wildlife resource.

**Wildlife Policy 2**

The Marsh waterways, managed wetlands, tidal marshes, seasonal marshes, and lowland and grasslands are critical habitats for marsh-related wildlife and are essential to the integrity of the Suisun Marsh. Therefore, these habitats deserve special protection.

The project alternatives would have minimal impacts on lands within the Suisun Marsh secondary management area. Impacts of the project on waterways, wetlands, and marshes would be mitigated as described in Section 3.2.2 of the Draft EIR/EIS. These mitigation measures would require compensation for affected waterways, wetlands, and marsh areas at a 1:1 ratio to ensure no net loss of these habitats as a result of the project.”

The full-build project alternatives would primarily affect annual grassland (non-wetland) habitat within the Secondary Management Area. Two seasonal drainages that cross under I-680 enter the Secondary Management Area within the permanent impact area (see OW-150 and OW-151 on Figures 3.3-2a and 3.3-2c, Sheet 13). Although all or most of these drainages would be filled as part of the proposed project, neither of these drainages extends more than about 200 feet into the Secondary Management Area from the edge of Ramsey Road. The drainages do not connect to the Suisun Marsh and end approximately 2,000 feet west of the primary marsh boundary. Direct and indirect impacts of the project on waterways, wetlands, and marshes would be avoided, minimized, and/or mitigated as described in Section 3.3.2 of this Draft EIR/EIS. Avoidance and minimization of impacts would be accomplished through implementation of measures (in Section 3.3.1.1) to install construction barrier fencing, to conduct environmental awareness training, and for biological monitoring, and measures to protect water quality and prevent erosion. In cooperation with the RWQCB and USACE, compensation for loss of drainage habitat (in Section 3.3.2.1) would be accomplished by purchasing habitat credits at an approved mitigation bank. Compensation for impacts on waterways, wetlands, and marsh areas would be at a 1:1 ratio to ensure no net loss of these habitats as a result of the project. Therefore, the loss of seasonal drainages OW-150 and OW-151 would be compensated to ensure no net loss of seasonal drainage habitat. In addition, mitigation for the loss of annual grassland would be required as Swainson’s hawk foraging habitat as described in Section 3.3.5.8 of the Draft EIR/EIS.

**Response to Comment 5-8**

The following text has been added to Section 3.1.1 of the Final EIR/EIS:

“Water Quality Policy 3

Disruption or impediments to runoff and stream flow in the Suisun Marsh watershed should not be permitted if it would result in adverse effects on the quality of water entering the Marsh. Riparian vegetation in the immediate Suisun Marsh watershed should be preserved, and stream modification permitted only if it is necessary to ensure the protection of life and existing structures from floods. Only the minimum amount of modification necessary should be allowed in such cases.

Section 3.2.1 of the Draft and Final EIR/EIS describes the potential water quality impacts of the project alternatives and describes both permanent and temporary (during construction) best management practices that would be implemented to protect water quality, preserve existing vegetation, and treat stormwater runoff before entering the Suisun Marsh.”

**Response to Comment 5-9**

The following text has been added to Section 3.1.1 of the Final EIR/EIS:

“Water Quality Policy 6

Riparian vegetation in the immediate Suisun Marsh watershed should be preserved due to its importance in the maintenance of water quality and its value as Marsh—related wildlife habitat. Stream modification should only be permitted if it is proved necessary to ensure the protection of life and existing structures from floods and only the minimum amount of modification necessary should be allowed.

The project would not affect any riparian habitat located within the Suisun Marsh area. As all project activities occurring within the Suisun Marsh Secondary Management Area would be subject to the issuance of a Marsh Development Permit by the San Francisco Bay Conservation and Development Commission (BCDC) and all conditions attached to the permit will be implemented as part of the project, the project would be consistent with the Suisun Marsh Protection Act policies and Solano County General Plan.”

**Response to Comment 5-10**

One of the expected results of global climate change is a rise in existing sea levels. Although predicting future sea levels is not a precise science, the latest estimate for the San Francisco Bay Area is that the level of the San Francisco Bay could increase by as much as 139 centimeters (55.6 inches) by the year 2100 (Knowles 2009). This estimate is based on the CCSM3 global climate model’s projection of a global average surface air temperature increase of approximately 8.1 degrees Fahrenheit. As stated in the draft *Potential Inundation due to Rising Sea Levels in the San Francisco Bay Region* report prepared for the California Climate Change Center (Knowles 2009), this estimate is “relatively high,” so the resultant estimate of Bay level rise can be considered a potential high-end estimate. This is the most current estimate available at the time of this writing.

The draft *Potential Inundation due to Rising Sea Levels in the San Francisco Bay Region* report includes a large-scale map of those areas projected to be vulnerable to inundation by average



yearly high water levels under the modeled 2100 conditions. In general terms, mapping was based on the hydrodynamic modeling of the height of the lands adjoining the San Francisco Bay in conjunction with predicted bay level rise. The report does not take into account the protection provided by or the adequacy of existing levees. The mapped vulnerable areas include lands that are currently behind levees. This report and maps are available at the following web address:

<http://www.energy.ca.gov/2009publications/CEC-500-2009-023/CEC-500-2009-023-D.PDF>

It is impossible to state with certainty to what extent the project site may be directly affected by a rise in the average level of the San Francisco Bay. The following exhibits depict Alternatives C and Alternative C, Phase 1 in relation to anticipated sea-level rise (data on sea level rise is taken from USGS, BCDC 2009). Alternative C, Phase 1 would occur in areas not anticipated to be affected by sea level rise. Improvements proposed as part of Alternative C along State Route 12 east could be affected by sea level rise. As indicated in the map of sea level rise in relation to Alternative B, much of Suisun City as well as substantial portions of the City of Fairfield would also be affected by sea level rise in this area.

Addressing issues of sea level rise at the regional level is a broad-based planning activity that will be implemented by Caltrans as well as other local, regional and state agencies. For transportation infrastructure this involves long-term planning and risk management in the transportation system. As such, the 2009 California Climate Change Adaptation Strategy Report suggests that Caltrans employ the following Adaptation Strategies for projects subject to sea level rise:

- **Develop a transportation use “hot-spot” map.** Research and identify transportation “hot spots” using updated NAS and other appropriate study efforts to identify across the State where the mixture of climate change impacts, population increases, and transportation demand increases will make communities most vulnerable to climate change. Caltrans will include in the analysis how the lowest-income communities in hot spot areas will be impacted.
- **Transportation Infrastructure Assessment.** Assess existing transportation design standards as to their adequacy to withstand climate forces from sea level rise and extreme weather events beyond those considered.
- **Buffer Zone Guidelines.** Develop guidelines to establish buffer areas and setbacks to avoid risks to structures within projected “high” future sea level rise or flooding inundation zones.
- **Stormwater Quality.** Assess how climate changes could alter size and design requirements for stormwater quality best management practices (BMPs). (CNRA, 2009)

These strategies are general in nature and intended to be carried out by Caltrans during the planning and programming of transportation projects across the entire transportation network. Incorporating these strategies early into the planning and programming of transportation improvements will allow transportation planners over time to design new facilities and incorporate measures into near-term transportation projects that will avoid, reduce, and address sea level rise across the transportation network.

The Bay Plan safety of fills findings and policies while acknowledging sea level rise primarily address the safety of fills placed in the Bay. While the project would not directly place fill in the bay, all structures and roadways would be designed, engineered and constructed to address site specific geologic, soils and seismic conditions. Section 3.2.3 Geology of the EIS/EIR contains a complete assessment of current geologic, soils and seismic conditions within the project area and provides specific recommendations for the design and construction of the proposed project to address site specific conditions.

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Letter 6

U.S. Department of Homeland Security  
FEMA Region IX  
1111 Broadway, Suite 1200  
Oakland, CA. 94607-4052



FEMA

September 29, 2010

Howell Chan, District Branch Chief  
State of California  
Department of Transportation  
111 Grand Avenue (P. O. Box 23660)  
Oakland, California 94623-0660

Dear Mr. Chan:

This is in response to your request for comments on prepared Draft Environmental Impact Report (EIR) for proposed Interstate 80/Interstate 680/State Route 12 Interchange Project.

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Solano (Community Number 060631) and City of Fairfield (Community Number 060370), Maps revised May 4, 2009. Please note that the City of Fairfield, Solano County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.
- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any **development** must not increase base flood elevation levels. **The term development means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

6-1

[www.fema.gov](http://www.fema.gov)



Howell Chan, District Branch Chief  
Page 2  
September 29, 2010

- All buildings constructed within a coastal high hazard area, (any of the “V” Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.
- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA’s Flood Map Revision Application Packages, please refer to the FEMA website at <http://www.fema.gov/business/nfip/forms.shtm>.

6-1  
cont.

**Please Note:**

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community’s floodplain manager for more information on local floodplain management building requirements. The Fairfield floodplain manager can be reached by calling Peter Wright, Jr., Engineer, at (707) 428-7784. The Solano County floodplain manager can be reached by calling Birgitta Carsello, Director, Department of Public Works, at (707) 784-6765.

6-2

If you have any questions or concerns, please do not hesitate to call Jane Hopkins of the Mitigation staff at (510) 627-7183.

Sincerely,



Gregor Blackburn, CFM, Branch Chief  
Floodplain Management and Insurance Branch

cc:

Peter Wright, Jr., Engineer, City of Fairfield  
Birgitta Carsello, Director, Department of Public Works, Solano County  
Ray Lee, State of California, Department of Water Resources, North Central Region Office  
Jane Hopkins, Floodplanner, DHS/FEMA Region IX  
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

[www.fema.gov](http://www.fema.gov)

***Comment Letter 6, Gregor Blackburn, CFM, Branch Chief, Floodplain Management and Insurance Branch, U.S. Department of Homeland Security, FEMA, 09/29/10***

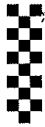
***Response to Comment 6-1***

Flood Insurance Rate Maps (FIRMs) were reviewed and are provided in Figures 3.2.1-1 through 3.2.1- 7 at the end of Section 3.2.1 in the Draft and Final EIR/EIS. A discussion of the Flood Zones within the project area is provided in Section 3.2.1 of the Draft EIR/EIS. All structures proposed for this project will meet NFIP building requirements. The proposed truck scales, which are to be constructed in the floodplain of Raines Drain, will be elevated and will include underground structures for stormwater storage, as discussed in Section 3.2.1 of the Draft and Final EIR/EIS.

***Response to Comment 6-2***

The adjacent communities of the city of Fairfield and the County of Solano have been contacted and they both adhere to the standards described in 44 CFR.

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SOLANO LAND TRUST (707

7074320151

p.1



Letter 7

October 5th, 2010

Howell Chan

Environmental Analysis Office Chief, Caltrans District 4

P.O. Box 23660, MS-8B

Oakland, CA 94623-0660

Board Members

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Immediate Past President

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Elizabeth Fry

Jane Hicks

John Isaacson

Albert Lavezzo

Russell Lester

Frank Morris

Sean Quinn

Linda Seifert

**Subject:** Comments Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the I-80/I-680/SR 12 Interchange Project

Dear Mr. Chan:

Solano Land Trust (SLT) holds an agricultural conservation easement in perpetuity on property along the route of the project, known as the Valine easement APNs: 27-251-33; 27-271-06; 27-251-34; 27-251-4-; 27-251-42; 27-251-44. SLT is submitting comments in response to the Environmental Impact Statement/ Report. These comments are submitted with approval from SLT's Executive Committee.

Chapter 3 of the EIR/EIS, describes in detail Solano County's commitment to preserving prime farmland as demonstrated by various provisions in the 2008 Solano County General Plan and the Draft Suisun Valley Strategic Plan. In the year 2000, the Department of Conservation's California Farmland and Ranchland Protection Program (CFCP) specifically recognized the value of protecting the agricultural value of the Valine Ranch when it funded the conservation easement transaction with State dollars.

7-1

#### Discussion of Impacts to Agricultural Land is Inadequate

The EIS/EIR appears to only discuss the direct conversion of farmland (pages 3.1.3-9 and 3.1.3-10). There is no discussion of indirect or secondary impacts of the conversion of farmland. What will be the impact on adjacent farmland due either to the operation of new highway facilities or an overall reduced amount of farmland in the area. For example, Table 3.1.3-3 states that a total of 72.46 acres are under a conservation easement held by SLT. On page 3.1.3-10 it states that 22.5 acres of this area will be converted to another use. Will the remaining parcel under the conservation easement (approximately 50 acres) remain a viable piece of farmland and remain in agricultural use?

7-2

1001 Texas Street, Suite C, Fairfield, CA 94533-5723 • Phone 707-432-0150 • Fax 707-432-0151 • [www.solanolandtrust.org](http://www.solanolandtrust.org)

Received Time Oct. 11, 2010 5:38PM No. 5550

Original art by Don Birrell



Oct 11 10 05:05p

SOLANO LAND TRUST (707

7074320151

p.2

**Mitigation Measures Are Inadequate**

Page 3.1.3-11 under the section title "Compensation for Conversion of Important Farmland," the report states "Lands under an agricultural conservation easement are considered to have higher agricultural value than other agricultural land in the project area." Given the special importance of lands protected under a conservation easement the proposed 1.25: 1 mitigation ratio for the loss of the Valine Ranch lands is insufficient. The proposed mitigation does not reflect the demonstrated public and conservation value that will be lost with the conversion of protected farm land. SLT recommends a minimum 2:1 ratio be used to mitigate for the agricultural conservation easement lands lost by this project.

7-3

Furthermore, the mitigation does not describe sufficiently how it will be accomplished, the location for the mitigation, and the timing. The mitigation states that "long-term land use restrictions such as agricultural conservation easements shall be obtained over Prime Farmland within Solano County...". First, it is not clear what "long-term land use restrictions" are being suggested. The farmland must be protected in perpetuity and through the use of a conservation easement. Second, the protected farmland must be in the close vicinity to the converted farmland, at a minimum we suggest within the Suisun Valley. Third the farmland must be secured and protected prior to the operation of the first phase of the project.

7-4

Please feel free to contact me with questions.

Best regards,



Nicole Byrd  
Executive Director, Solano Land Trust

Received Time Oct. 11. 2010 5:38PM No. 5550

**Comment Letter 7, Nicole Byrd, Executive Director, Solano Land Trust, 10/05/10**

**Response to Comment 7-1**

Comment noted.

**Response to Comment 7-2**

Indirect or secondary impacts to farmlands would be minimal to none as a result of the project. Farmlands that are affected by the project are already located in close proximity (directly adjacent) to major transportation facilities (Interstate 80, interstate 680 and State Route 12). The farmlands within the project area do not appear to be significantly affected or less productive due to their close proximity to these major transportation facilities. Given the existing conditions, the project would not introduce any indirect or secondary impacts to these agricultural parcels located immediately adjacent to the transportation facilities. Thus, the remaining portions of parcels affected would not be subject to less productivity as farmland.

**Response to Comment 7-3**

Under NEPA, based on the results of the Farmland Conversion Impact Rating, the project alternatives will not result in a substantive adverse effect on farmlands. Under CEQA, the Department will, however, mitigate for agricultural impacts, on a case by case basis, in a quantity or ratio according to professional judgment based on local plans, the type of farmland, and economic impacts. In this project, important farmland (“prime farmlands”) will be mitigated at a 1:1 ratio (one acre protected for every one acre affected). Farmlands under an agricultural conservation easement will be mitigated at a slightly higher ratio, 1:25:1.

Agricultural land is a finite resource. However, the project mitigation will require the conservation of an equal amount of agricultural land and acquisition of a larger conservation easement; this mitigation would replace the land that is lost. For CEQA purposes, therefore, the proposed project’s impact on farmland is less than significant after mitigationconsiderable.

**Response to Comment 7-4**

As discussed in Section 3.1.3 of the Draft and Final EIR/EIS, mitigation would consist of obtaining long-term land use restrictions such as agricultural conservation easements over Prime Farmland within Solano County. Conservation easements are generally in perpetuity as suggested by the commenter. Mitigation of important farmlands will occur prior to beginning construction activities that affect such farmlands.

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**Letter 8**

"Richard Wirth" <WirthR@SIDWater.org>

10/06/2010 12:46 PM

To <howell\_chan@dot.ca.gov>  
cc "Justin Hopkins" <jhopkins@SIDWater.org>  
Subject I-80/I-680/SR12 Interchange Project

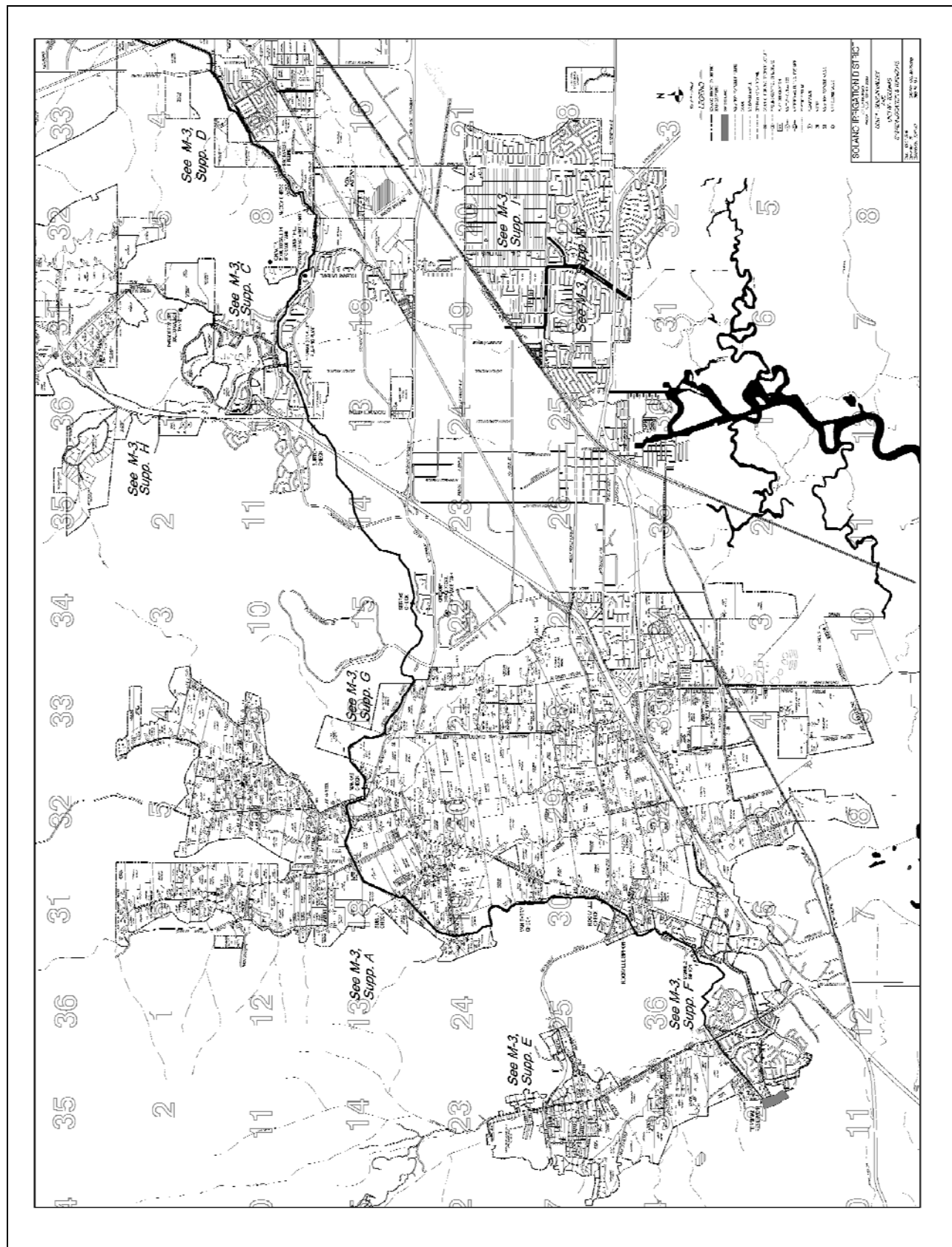
Hello Mr. Chan:  
Solano Irrigation District and the Suisun Solano Water Authority have multiple water and drainage facilities that are adjacent to, or cross I-80 and State Route 12. I have attached several facility location maps showing a graphic representation of our facilities in the general area of your project. Please contact me on getting more specific information on the facilities that you determine will be impacted by your project. We will be providing additional comments on the Draft EIR as soon as possible.  
Thanks.  
-Richard

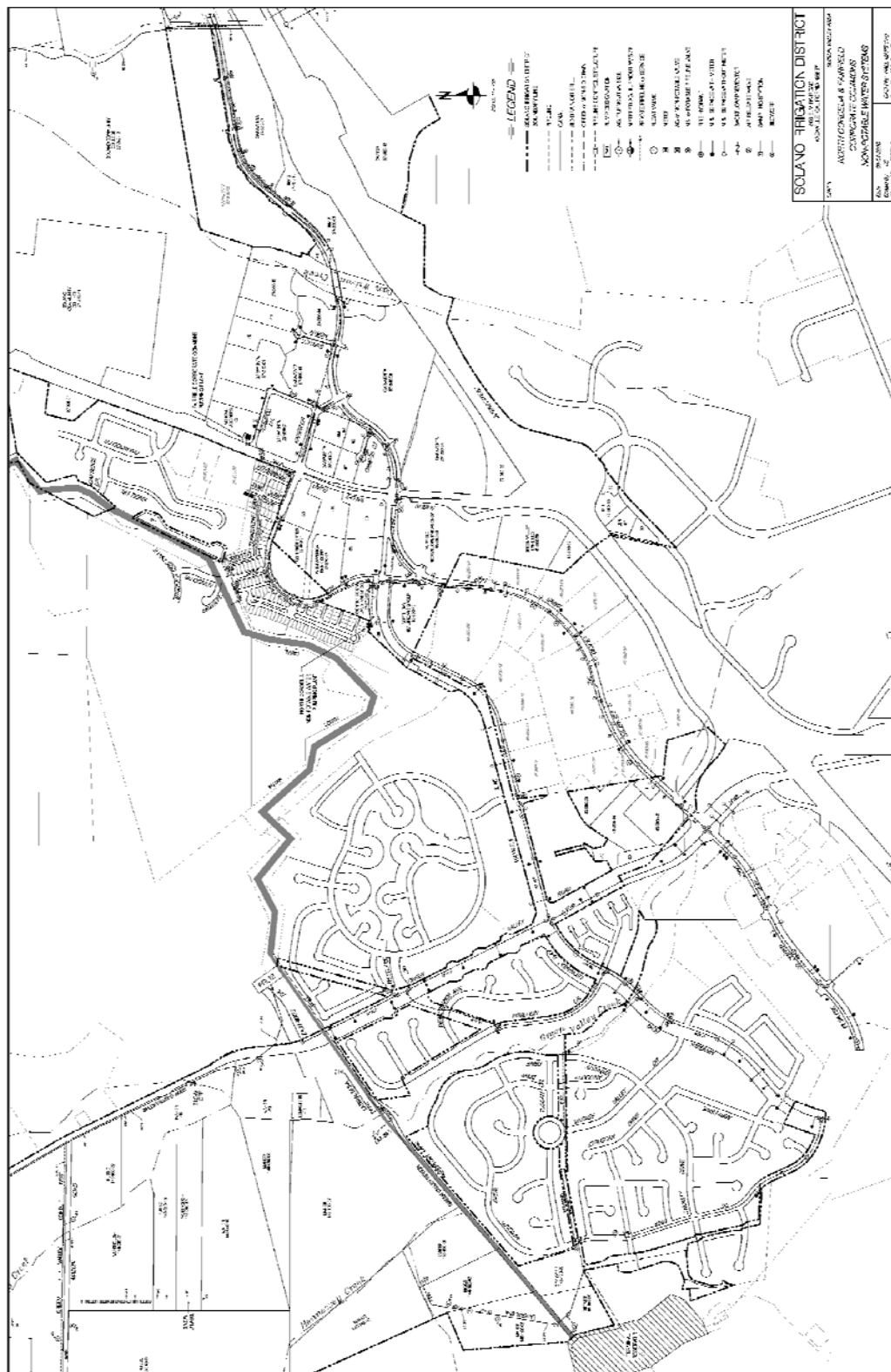
8-1

Richard Wirth  
Assistant Civil Engineer  
Solano Irrigation District  
508 Elmira Road  
Vacaville, California 95687  
707-455-4018 Office  
707-452-8557 Fax  
707-249-6073 Cell  
rwirth@sidwater.org  
(See attached file: SSWA Facility Map.PDF)(See attached file: SID Facilities.PDF)(See attached file: SID N\_Cordelia-Corp\_Cmns Facilities.PDF)









***Comment Letter 8, Richard Wirth, Assistant Civil Engineer, Solano Irrigation District, 10/06/10***

***Response to Comment 8-1***

Comment noted.



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Letter 9

"Justin Hopkins" <jhopkins@SIDwater.org>

10/07/2010 11:39 AM

To "Richard Wirth" <wirthR@SIDwater.org>,  
<howell\_chan@dot.ca.gov>  
CC  
Subject RE: I-80/I-680/SR12 Interchange Project

Good morning Mr. Chan:

I have reviewed the Draft EIR for the I-80/I-680/SR12 Interchange Project and have the following comments on section 3.1.5 Utilities and Emergency Services:

Water Service

1. The Solano County Water Agency has the master contract with the U.S. Bureau of Reclamation for the Solano Project, which is a source of water for the county, but is not effected by this project.
2. The Solano Irrigation District owns and operates facilities within the proposed project area that deliver agricultural water to customers on the north and south side of the project.
3. The Suisun Solano Water Authority (SSWA), composed of the SID and Suisun City, operate a treatment plant outside of the project area that delivers potable water to the City of Suisun.

9-1

Environmental Consequences

Potential Effect to Utilities

1. This section reads correctly as any SID or SSWA facilities affected by the project would need to be relocated, realigned, or extended.

9-2

The exact description of "water Service" purveyors within the project area is not important, but should be corrected to reflect the information provided above. Thank you for the opportunity to review and comment on the Draft EIR. Please feel free to contact Richard Wirth or I with any questions or if you require additional information.

9-3

Respectfully,

Justin Hopkins, E.I.T.  
Assistant Civil Engineer  
Solano Irrigation District 707.455.4007  
Fax: 707.452.8557  
jhopkins@sidwater.org

The information transmitted herewith is intended solely for the use of the addressee and may include confidential or privileged product. Unauthorized use, duplication, disclosure, or dissemination of the information contained in the electronic mail transmission is strictly prohibited. If this transmission is received in error, please immediately, contact Justin Hopkins at the above referenced telephone number or electronic mail address.

**Comment Letter 9, Justin Hopkins, E.I.T., Assistant Civil Engineer, Solano Irrigation District, 10/07/10**

Response to Comment 9-1

Comment noted.

Response to Comment 9-2

Comment noted.

Response to Comment 9-3

A discussion of the water suppliers in the project area has been added to Water Services Section 3.1.5 of the Final EIR/EIS.

Letter 10

"jfutini@juno.com <jfutini@juno.com>

09/11/2010 06:07 PM

To Howell\_chan@dot.ca.gov  
cc  
Subject I-80, I-680, Hwy 12 Project

Mr. Chan,  
I'll tell you the same thing that I emailed to Jane Adams of Solano Transportation Agency when that project was started. It would waste millions of dollars and succeed in doing nothing but add additional lanes and further congest I-80. My suggestion was to separate I-680 from connecting with I-80 and divert it to run along the railroad tracks all the way to Sacramento where it would merge into Hwy 50. This would give traffic an individual alternate route to the capitol and beyond to Nevada. The funds spent on your I-80, I-680, in doing what your doing, could build that separate highway and dramatically change things. Caltrans is fifty years behind the times in highway construction. Hwy 12 should be a full freeway from I-5 to Hwy101. What do we have? A patchwork of two-lane, antiquated roadways with some passing lanes. Congestion is so impacting our highways where the amount of vehicles far surpasses the ability and the integrity of the roadway that it doesn't take an Einstein to realize that unless Caltrans gets with it we will have more than a gridlock catastrophe! Something needs to be done immediately and not by 2035. If Caltrans goes like they are going, when they reach 2035 with their highway plans, they will be seventy-five years behind the times. Today's traffic can't wait. I hope somebody wakes up. John Futini

10-1

10-2

10-3



**Comment Letter 10, John Futini, 09/11/10**

**Response to Comment 10-1**

The fundable phase of the project is expected to cost approximately \$600 million (\$557 million for Alternative B, Phase 1 and \$686 million for Alternative C, Phase 1) as noted in Table 2-4 of the Draft EIR/EIS. Table 2-4 in Section 2.8.1 of the Final EIR/EIS has been updated to reflect costs based on more current estimates. The project would result in adding lanes to both I-680 and I-80, as well as to SR 12. The addition of these lanes would reduce congestion by accommodating projected growth.

**Response to Comment 10-2**

Two alternatives similar to that proposed by the commenter were considered early in the planning process for the interchange project. A four-lane freeway (referred to as the South Parkway) would diverge from I-680 at Gold Hill, run parallel to and south of the railroad tracks and merge with SR 12 at Pennsylvania Avenue. The other similar alternative consisted of an alignment parallel, and adjacent, to the UPRR Capitol Corridor line beginning either at the I-680/Parish Road interchange or the I-680 Marshview Road interchange and extending northeasterly merging with SR 12 at Pennsylvania Avenue. These two alternatives were rejected because each would place a transportation facility within the Primary Suisun Marsh, which is prohibited by state law (the Suisun Marsh Preservation Act of 1974). See Section 2.6 of the Draft EIR/EIS for a discussion of this alternative and other alternatives considered but eliminated from further consideration. Other corridor planning efforts for SR 12 are underway.

**Response to Comment 10-3**

The Department and other transportation planning agencies agree that congestion through the I-80/I-680/SR12 Interchange is a major problem. The Department will be implementing improvements as expeditiously as possible.



**SOLANO COUNTY**  
**Department of Resource Management**  
Public Works Engineering  
675 Texas Street, Suite 5500  
Fairfield, CA 94533  
www.solanocounty.com

**Letter 11**

Telephone No.: (707) 784-6765  
Fax No.: (707) 784-2894

Bill Emlen, Director  
Clifford K. Covey, Assistant Director

October 8, 2010

Caltrans District 4  
Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660

Re: I-80/I-680/SR12 Interchange Project Draft EIR/EIS

Dear Mr. Chan:

Thank you for preparing the I-80/I-680/SR12 Interchange Project Draft EIR/EIS. Improvement of this intersection is the top regional transportation priority for the Solano County area, and is one of the key transportation projects for the Bay Area as a whole. The existing substandard intersection configuration is not well suited to handle the growth in regional traffic expected to occur in the future, and must be improved.

11-1

Both Alternative B (maintaining the existing interchange location) and Alternative C (relocating the interchange to the west to align with SR12 West) would provide significant benefits to the traveling public by substantially reducing congestion compared with the No Build alternative. In some ways, Alternative B provides a greater reduction in delays than Alternative C. However, Alternative C also provides a number of advantages relative to Alternative B. Among them are:

1. It would create one I-80/I-680/SR12 interchange, instead of having two separate interchanges (I-80/I-680 and I-80/SR12) in close proximity. Such a configuration is generally favored by FHWA and Caltrans, and may provide improved safety and congestion relief.
2. The relocated interchange would be located west of the existing interchange location. This will increase the separation between the interchange and the I-80 truck scales in both directions, again providing improved safety and congestion relief.

11-2

Building & Safety  
David Cliche,  
Chief Building  
Official

Planning Services  
Mike Yankovich  
Program Manager

Environmental  
Health  
Terry Schmidbauer  
Program Manager

Administrative  
Services  
Suganthi Krishnan  
Sr. Staff Analyst

Public Works  
Engineering  
Paul Wiese  
Engineering Manager

Public Works  
Operations  
Wayne Spencer  
Operations Manager

3. Unlike Alternative C, Alternative B would have northbound I-680 traffic merging into I-80 traffic on the left side. This non-standard configuration could be confusing to motorists, and could impact traffic safety and congestion.

11-2  
cont.

For these reasons, Solano County prefers Alternative C, and supports Phase 1 of Alternative C as an interim fundable project.

Thank you for the opportunity to comment on the environmental documents. Please call me at (707) 784-6072 if you have any questions.

Sincerely,



Paul Wiese  
Engineering Manager

c. Mike Yankovich, Planning

U:\users\pwiese\data\word\STA/I-80 I-680 comment letter.doc

***Comment Letter 11, Paul Wiese, Engineering Manager, Solano County,  
Department of Resource Management, Public Works Engineering, 10/08/10***

***Response to Comment 11-1***

Comment noted.

***Response to Comment 11-2***

Comment noted.



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Letter 12

Jackie Kepley <jrkepley@yahoo.com>

10/11/2010 08:27 AM

To howell\_chan@dot.ca.gov  
CC  
Subject I-80/I-680/SR12 Interchange Project

Dear Howell Chan,

My name is Jackie Kepley and I am a homeowner in the Cordelia Village Neighborhood. In fact my backyard is right against Red Top Road. Having commuted from Cordelia to Napa and back for a year and now to Benicia and back, I completely agree that something needs to be done in regards to I-80/I-680/SR12. However looking at the plans that were received I have to disagree with the plan.

12-1

My first complaint on both plans is that it appears an on and off ramp will be added from 680 connecting to Red Top Road. Not only is this road busy most hours of the day but it also goes in front of a high school. I find this VERY dangerous for the children as well as the parents trying to drop off and pick up their children. Living so close to the High School I know for a fact that children are present from 7am or earlier until 8pm or later with sports practice etc. That hardly qualifies as "Reduce the amount of cut-through traffic on local roads"

12-2

As for Alternative C, where I-680 would be realigned to connect directly with the I-80/SR 12 interchange, I can't help but feel that this would bring the traffic and accompanying noise even closer to the surrounding neighborhoods. Has a study been conducted to measure the amount of noise this will add??? And again.....it appears to come rather close to the high school. Has anybody considered adding a junction between I-680 and Highway 12 in Suisun??

12-3

12-4

Thank you for your time,

Jackie Kepley

549 Silverado Circle  
Fairfield, CA 94534  
707-258-1452

**Comment Letter 12, Jackie Kepley, 10/11/10**

**Response to Comment 12-1**

Comment noted.

**Response to Comment 12-2**

The commenter expresses concern that construction of Alternative C, Phase 1 would result in increased traffic along Red Top Road in front of Rodriguez HS that could affect intersection operations and student safety.

Based on the 2035 traffic forecasts, without the project (No-Build Alternative), Red Top Road east of I-80 would have approximately 2,095 vehicles in the AM peak hour and 2,445 vehicles in the PM peak hour. With Alternative C, Phase 1, traffic projections forecast 1,605 vehicles for the same location in the AM peak hour and 2,460 vehicles in the PM peak hour. This represents a 23 percent reduction in the number of AM peak hour trips and less than a 1 percent increase in the number of PM peak hour trips as a result of constructing Alternative C, Phase 1. Thus, traffic operations adjacent to the school are expected to remain the same or improve with the project.

Generally with increased traffic there is a corresponding increase in congestion related (rear-end type) accidents. A decrease in congestion generally results in fewer congestion-related accidents. Thus, Red Top Road is expected to be a safer facility for students, residents, and others with the construction of Alternative C, Phase 1 than with the No-Build Alternative (without the project).

**Response to Comment 12-3**

Federal regulation 23CFR772 requires that traffic noise levels associated with federally-funded projects such as this be evaluated under the federal regulation. A Noise Study Report was prepared in accordance the requirements of the regulation and applying Caltrans' Traffic Noise Analysis Protocol. Under Alternative C, I-680 would be realigned to the west away from residences located along Bridgeport Avenue and Ritchie Road. The existing alignment of I-680 north of Red Top Road would be converted to a local access road. Under Alternative C, traffic noise levels are predicted to increase by up to 4 dB at residential and park uses along I-680 under both Phase 1 and full build conditions, as a result of increased traffic volumes on I-680. These results are summarized in Table 3.2.7-4, and the locations that were modeled are shown in Figure 3.2.7-12 of the Draft and Final EIR/EIS. Absolute noise levels are predicted to approach or exceed the noise abatement criterion of 67 dBA  $L_{eq}$  at Rolling Hills Park and a residence on Ramsey Road. Noise abatement in the form of noise barriers were evaluated but were determined to exceed criteria for reasonableness of cost. This increase, however, does not constitute a significant traffic noise impact (an increase of 12 dB over existing levels) as defined in the Caltrans Noise Protocol. The technical studies supporting these findings are available at the Department District 04 and STA offices.

**Response to Comment 12-4**

An alternative similar to that proposed by the commenter was considered early in the planning process for the interchange project. A four-lane freeway (referred to as the South Parkway) would diverge from I-680 at Gold Hill, run parallel to and south of the railroad tracks and merge with SR 12 at Pennsylvania Avenue. This alternative was rejected because it would place a

transportation facility within the Primary Suisun Marsh, which is prohibited by state law (the Suisun Marsh Preservation Act of 1974). See Section 2.6 of the Draft EIR/EIS or Section 2.5.2 of the Final EIR/EIS for a discussion of this alternative and other alternatives considered but eliminated from further consideration.



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Letter 13

Jeff Dittmer <jfdittmer@sbcglobal.net>

10/11/2010 03:51 PM

To Howell\_chan@dot.ca.gov  
CC  
Subject Comments I-80 I-680 SR-12

In regards to the EIR/EIS for the I-80 I-680 SR-12 Interchange Project:

1. Bicycle paths.

(a) The plan shows a bicycle path extending south from the end of Business Center Drive along the edge of our family's property to the proposed ramp from WB 80 to SR12. Note that there is a 5.99 acre parcel, APN 0148270060, that is landlocked from any public street. That parcel has access via a recorded right of way over the adjacent parcel to the end of Business Center Drive. Although both parcels are owned by our family, the ownership is by different individuals and the parcels could be developed separately. The proposed bicycle path is on the right of way that provides the only public access for that parcel. If a bicycle path is constructed in that location it can not be allowed to eliminate access for the 5.99 acre parcel.

13-1

(b) The plan also shows a bicycle path extending from the end of Mangels Blvd to the end of Business Center Dr. The driveway into our ranch extends from the end of Mangels Blvd. The SW corner of the adjacent Jayo property comes very close to that driveway, but it will remain workable upon development of Jayo's property, which is supposed to begin next year. If a bicycle path were built around the corner of the Jayo property it would require major realignment and reconstruction of our driveway, which needs to be accessible to large trucks as well as cars. We request that you reconsider this component of the plan. Perhaps part of the path could be incorporated into Jayo's landscaping to avoid the corner.

13-2

(c) We also request that if these paths are built that a security fence matching that at the entrance to our driveway and along Mangels Blvd be constructed to separate them from our property.

13-3

2. New roadway connecting Red Top Road/SR-12 interchange and Business Center Drive.

(a) This proposed roadway will cut our property in two. Back and forth access must be maintained for ranching activities. We also have a domestic water line that the proposed roadway crosses. Access for that water line must be maintained in such a way as to allow for repairs and maintenance. We have received verbal assurances that an adequately sized tunnel for vehicle and livestock access and a utility passageway that would accommodate a water line are to be included. Please confirm.

13-4

(b) This proposed roadway as well as the freeway improvements will leave our property with very limited access. In the event the property is developed, the project will have eliminated previously anticipated means of access. We request that adequate future access from the proposed roadway be provided as well as adequate access for its current use as a ranch headquarters.

13-5

Jeff Dittmer  
(707) 372-5760  
jfdittmer@sbcglobal.net

**Comment Letter 13, Jeff Dittmer, 10/11/10**

**Response to Comment 13-1**

Access will be maintained to commenter's property. Final location and details of the access will be developed during final design. Figure L-1, which shows the preliminary alignment of the bicycle path, security fence, driveway access to property and access underneath the proposed extension of Business Center Drive, has been added in this response to this comment.

**Response to Comment 13-2**

Comment noted. STA and the Department have removed the segment of bicycle path that would connect Mangels Boulevard to Business Center Drive from consideration as part of this project. This was done because the City of Fairfield determined there is no need for a separate bicycle connection between Mangels Boulevard and Business Center Drive at the westerly city limit.

**Response to Comment 13-3**

The proposed bicycle path that would run from Business Center Drive to the south and then along I-80 and State Route 12 west would be separated from the commenter's property by a fence. This fence will be included as part of the bicycle path construction. Please see Figure L-1 on the following page.

**Response to Comment 13-4**

A 14-foot-high arch undercrossing of the Business Center Drive Extension, sufficient for use by livestock, has been incorporated into the project approximately 750 feet west of the current westerly terminus of Business Center Drive. The final location will be determined during the final design phase. Please see Figure 3.3-8 in the Final EIR/EIS.

**Response to Comment 13-5**

The proposed Business Center Drive extension will provide access to the Commenter's property at preliminary driveway locations approximately 500 feet west of the current westerly terminus of Business Center Drive as shown in Figure L-1. The final access locations and details will be determined during final design.

Letter 14



11 October 2010

Howell Chan, Environmental Analysis Branch Chief  
California Department of Transportation, District 04  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660  
[howell\\_chan@dot.ca.gov](mailto:howell_chan@dot.ca.gov)

**RE: Draft EIR Interstate 80/Interstate 680/State Route 12 Interchange Project**

Dear Mr. Chan,

I am writing to provide comments on the Draft EIR for the Interstate 80/Interstate 680/State Route 12 Interchange Project on behalf of the Bay Area Ridge Trail Council. We appreciate this opportunity to provide input regarding the proposed project in connection with the Bay Area Ridge Trail (Ridge Trail) in Solano County.

The Ridge Trail Council is a 501(c)(3) non-profit organization dedicated to completing the Ridge Trail, a continuous public trail on the ridgelines surrounding the San Francisco Bay. As planned, the Ridge Trail will connect open spaces and parklands in the nine Bay Area counties on a 550-mile trail for hikers, equestrians, mountain bicyclists, trail runners, and outdoor enthusiasts of all ages, abilities and incomes. Today over 330 miles are dedicated and we are working to connect up the rest. For over 20 years we have been working with the Solano County Board of Supervisors, Solano Transportation Authority, Solano Land Trust and the cities of Fairfield, Vallejo and Benicia to plan and implement the Ridge Trail through Solano County.

Provided below is background information on Ridge Trail Council's history in Solano County and its regional significance followed by our comments on the Draft EIR.

14-1

**Background**

In Solano County, about 30 miles of Ridge Trail are complete and another 24 miles are being planned. A map showing the existing Ridge Trail segments within Solano County is attached (see attached SolanoFinMap). The City of Fairfield recently (on 9/30/10) dedicated McGary Road, from Red Top Road to Lynch Canyon Open Space as an official segment of the Ridge Trail (see attached McGary Rd fin pease map). In addition to McGary Road, dedicated Ridge Trail segments near the project site include those in Rockville Hills Regional Park, Lynch Canyon Open Space and Hiddenbrooke Open Space.

The Ridge Trail's entire regional trail alignment has been adopted as a Priority Conservation Area (PCA) within the San Francisco Bay Area FOCUS strategy. FOCUS is a regional development and conservation strategy led by the Association of Bay Area Governments and the Metropolitan Transportation Commission, with support from the Bay Area Air Quality Management District and the Bay



|  |                       |
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| <p>Conservation and Development Commission that promotes a more compact land use pattern for the Bay Area. Priority Conservation Areas are areas of regional significance that have broad community support and an urgent need for protection. These areas provide important agricultural, natural resource, historical, scenic, cultural, recreational, and/or ecological values and ecosystem functions. FOCUS's purpose of designating PCAs is to accelerate protection of key natural lands in the San Francisco Bay Area through purchase or conservation easements within the next few years.</p>  | <p>14-1<br/>cont.</p> |
| <p><b>Ridge Trail Council Comments on the DEIR Interstate 80/Interstate 680/State Route 12 Interchange Project</b></p>   |                       |
| <p><u>The Ridge Trail Council supports:</u></p>  |                       |
| <ol style="list-style-type: none"> <li>1. The following 2 quotes from the DEIR: <ol style="list-style-type: none"> <li>a. In section 2.5.2 on page 225, "Under a smart-growth alternative, new approaches to transportation planning, such as better coordinating land use and transportation; increasing the availability of high-quality transit service; creating redundancy, resiliency and connectivity within the local road networks; and ensuring connectivity between pedestrian, bike, transit, and road facilities, would be implemented."</li> <li>b. In Chapter 3 on page 3.1.6-3, "The Department, as assigned by FHWA, directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652)."</li> </ol> </li> <li>2. The implementation of all Ridge Trail related bicycle and pedestrian facilities be included in Phase I of implementation for the project.</li> </ol> | <p>14-2</p>           |
| <p><u>The Ridge Trail Council requests the following changes in the DEIR:</u></p>  |                       |
| <ol style="list-style-type: none"> <li>1. Connections to proposed project being considered in the Jamison Canyon Corridor Study. The Solano Transportation Authority, Bay Area Ridge Trail Council and other Solano County agency partners are conducting a Jameson Canyon Corridor study for a Class I bike/pedestrian path along the SR12 corridor. The Draft EIR should analyze how this proposed trail would connect to the planned bike/pedestrian trail along the Business Center Drive extension. With the proposed Business Center Drive overcrossing of SR 12 and the railroad at the intersection with Red Top Road, it is unclear how the Jamison Canyon trail would connect to this new overcrossing and Red Top/Business Center Drive.</li> </ol>   | <p>14-3</p>           |
| <ol style="list-style-type: none"> <li>2. Appendix B, B.1.1. City of Fairfield, Trails and Bikeways, page 8: <ol style="list-style-type: none"> <li>a. Paragraph 2. The Draft EIR states that the Bay Area Ridge Trail is not within the City of Fairfield General Plan. This is incorrect. The Bay Ridge Trail is referenced in the City of Fairfield General and has been supported by resolution of the City of Fairfield City Council. The Bay Area Ridge Trail is also included in the Solano County General Plan and has been supported by resolution by the Solano County Board of Supervisors.</li> </ol> </li> </ol>  | <p>14-4</p>           |
| <ol style="list-style-type: none"> <li> <ol style="list-style-type: none"> <li>b. Paragraph 3. At the end of this paragraph, the document states that the closest completed and open segment of the Bay Area Ridge Trail is located approximately 1.5 miles south of the project area. On September 30, 2010, the Ridge Trail segment along McGary Road from Red Top Road to Hiddenbrooke Drive was dedicated by the City of Fairfield and the Ridge Trail Council. With this dedication, a completed and open segment of the Ridge Trail is now located immediately adjacent to the project area.</li> </ol> </li> </ol>  | <p>14-5</p>           |
| <ol style="list-style-type: none"> <li> <ol style="list-style-type: none"> <li>c. Paragraph 4. The Ridge Trail corridor as currently planned would have utilized the existing I-80 bike path from Red Top Road/SR12 along I-80 to Green Valley Road. This project will relocate the path to the Business Center Drive Extension. With this change there are now several alternatives for completing the gap between the existing segments of the Ridge Trail that end at Mc Gary Road and Green Valley Road. The EIR should note that the Ridge Trail alignment would extend from McGary Road north along Red Top Road and the new Business Center Drive Extension to the New Bike</li> </ol> </li> </ol>  | <p>14-6</p>           |

Path Alignment at the intersection with the existing Business Center Drive roadway. At this point the Ridge Trail could continue along Business Center Drive to Green Valley Road then north along Green Valley Road to the existing trail segment on Green Valley Road. Alternatively, the Ridge Trail could follow the new Bike Path Alignment to Mangels Blvd and then east along Mangels Blvd to Green Valley Road then north on Green Valley Road to the existing Ridge Trail segment. These two potential alignments for the Bay Area Ridge Trail should be included as part of the EIR analysis.

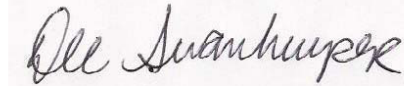
14-6  
cont.

3. The Final EIR should include a figure and detailed description of the Bike/Pedestrian improvements what would be a part of this project. The Draft EIR States that the Bike/Pedestrian improvements will follow Fairfield General Plan Bike Network and North Connector Corridor Transportation for Livable Communities studies and that after construction the Bike/Pedestrian improvements will utilize the new extension of Business Center Drive to cross over SR 12W and rail line to connect with Red Top Road. The figure and description should show and describe the actual project Bike/Pedestrian improvements and how connections from these improvements will be made to the existing and planned trails at McGary Road/Red Top Road, Jamison Canyon/SR12 and the existing Bike/Pedestrian paths in North Cordelia.

14-7

On behalf of the Ridge Trail Council and our numerous supporters, we appreciate the opportunity to provide input. We would be happy to discuss or provide any additional information related to the Ridge Trail. Please do not hesitate to contact me to discuss any aspect of our remarks as they relate to this proposed project.

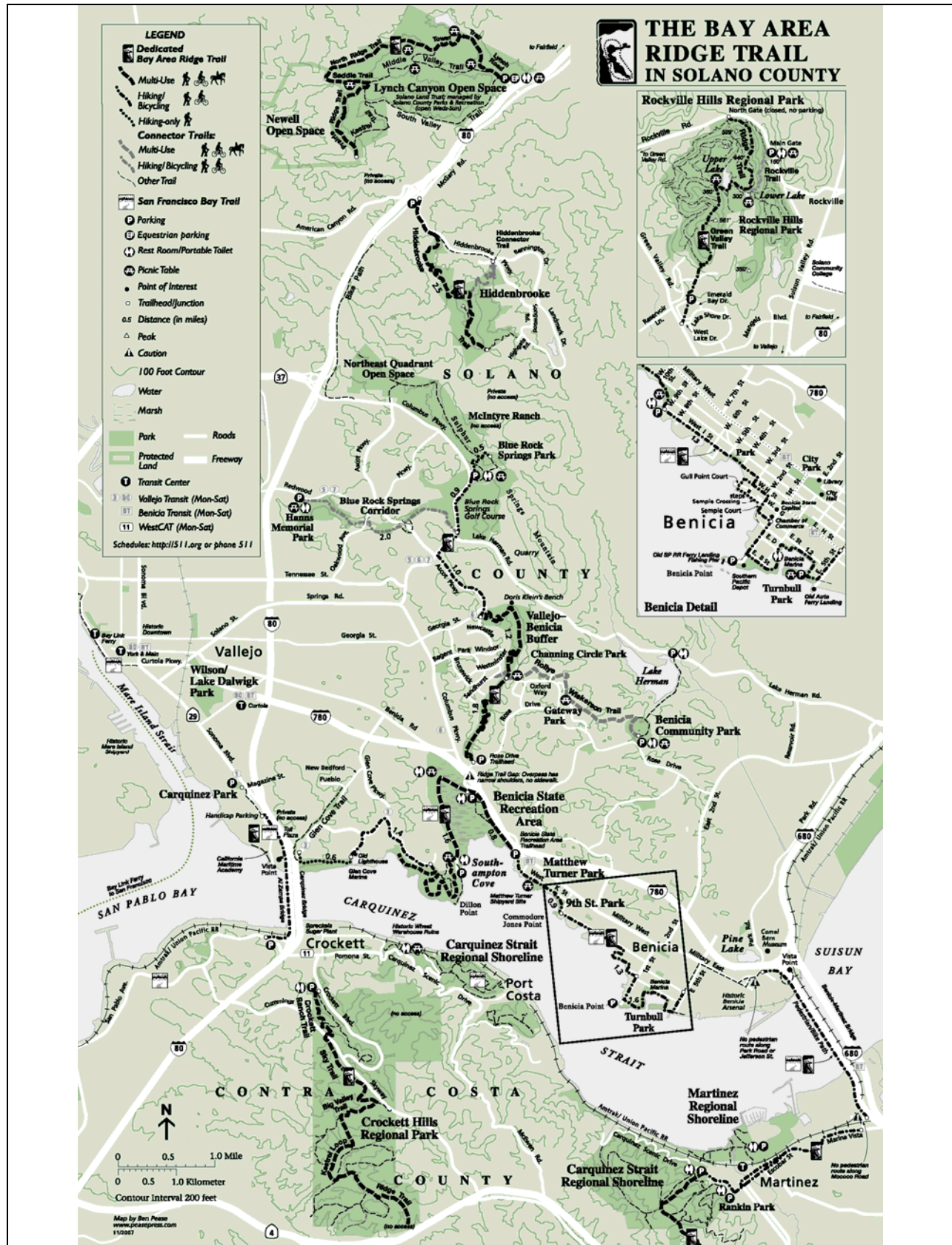
Sincerely,



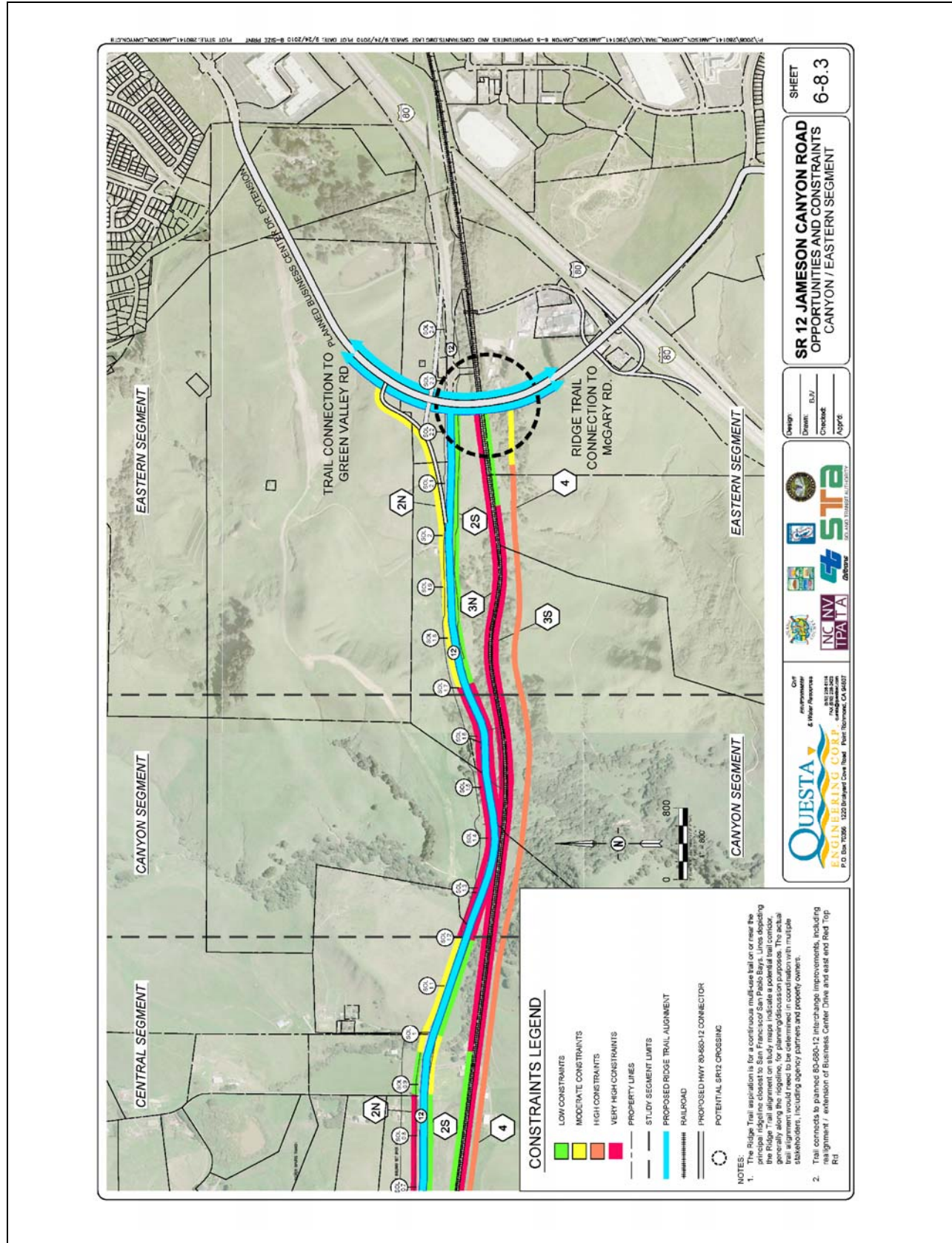
Dee Swanhuysen, North Bay Trail Director

Attachments: SolanoFinMap  
Jameson\_Canyon 6-8 Sheet 6-8.3 copy  
McGary Rd fin pease map

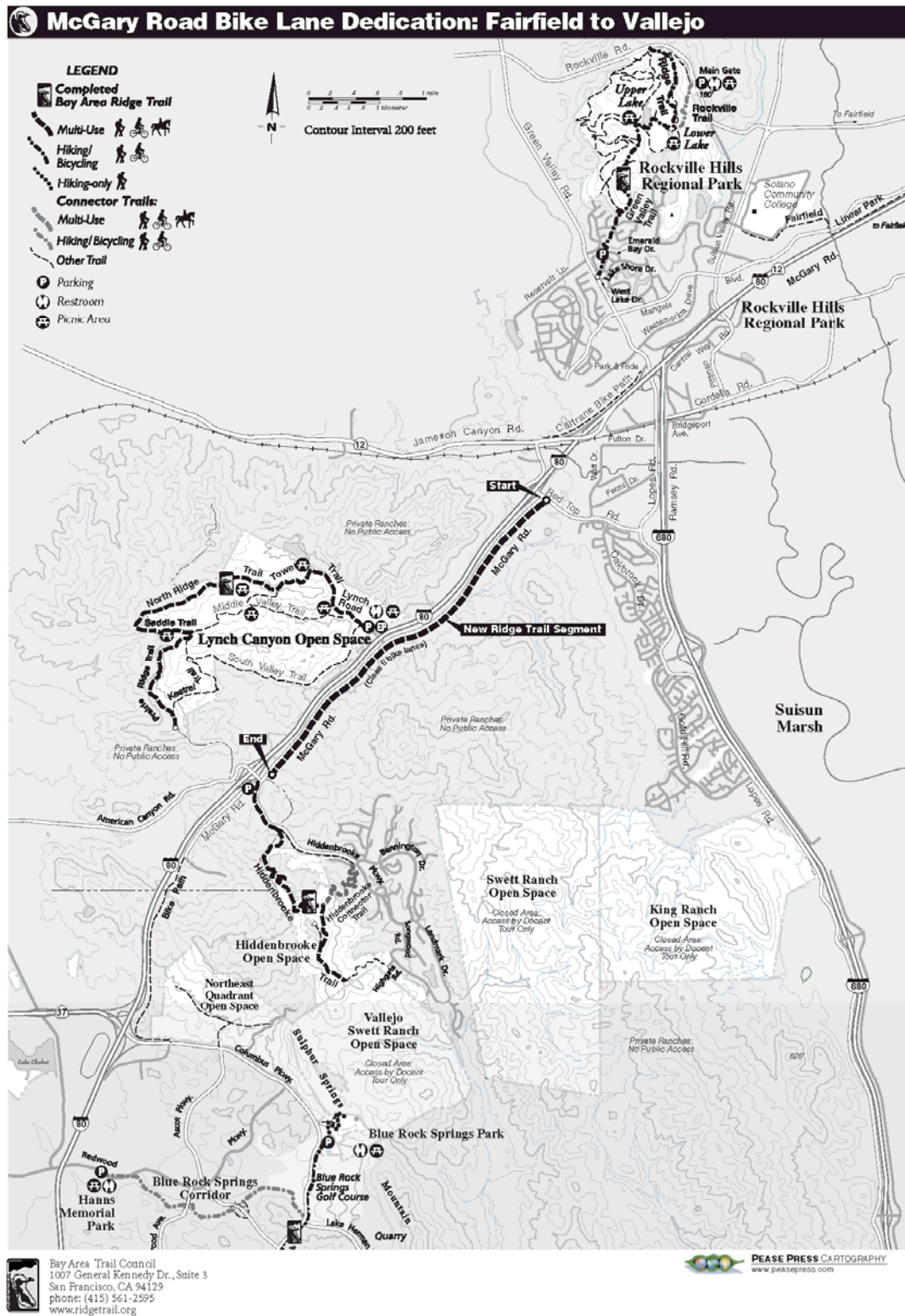
CC: Daryl Halls, STA Executive Director  
Janet Adams, STA Director or Projects  
Sara Woo, STA Strategic Planning











**Comment Letter 14, Dee Swanhuysen, North Bay Trail Director, Bay Area Ridge Trail Council, 10/11/10**

Response to Comment 14-1

Comment noted.

Response to Comment 14-2

The first quote that the commenter supports (Section 2.5.2) refers to the Smart Growth Alternative which was removed from consideration as a stand-alone alternative because it did not meet the project purpose and need. Though this alternative was rejected, elements of it are being implemented by STA outside of this project.

Alternative C, Phase 1 would include the construction of a bicycle path along the western boundary of the business park at the west end of the existing Business Center Drive parking lot, and along the north side of the new connector from westbound I-80 to westbound SR 12W to maintain access between the existing bicycle path along Jameson Canyon Road (SR 12W) and Business Center Drive. This path would be removed when Business Center Drive is extended to the SR 12W/Red Top Road interchange because bicyclists would be able to utilize the extension of Business Center Drive to reach Red Top Road and points west.

The bicycle facilities included in Alternative C, Phase 1 would allow Ridge Trail users to traverse the project area to reach existing Ridge Trail facilities both north and south of the immediate project area. However, Ridge Trail-related facilities are not part of the project.

Response to Comment 14-3

The Jameson Canyon Corridor Study being conducted by STA is currently underway and will study how connections with the interchange improvements could be achieved. The interchange project has included analysis of pedestrian and bicycle facilities within the immediate interchange study area and includes improvements to facilitate bicycle and pedestrian movements through the project area.

Response to Comment 14-4

Page B-8 of Appendix B has been revised in this Final EIR/EIS to acknowledge a new segment of the Bay Area Ridge Trail that was dedicated by the City of Fairfield and the Ridge Trail Council in September 2010. This segment, which lies to the south of I-80 along McGary Road from Red Top Road to Hiddenbrooke Parkway, is located immediately adjacent to the western segment of the project alignment. The revised section also evaluates potential indirect project impacts to the segment, especially during construction.

Response to Comment 14-5

Comment noted. The bike path on McGary Road was dedicated and opened during the public review period of the Draft EIR/EIS. This segment, which lies to the south of I-80 along McGary Road from Red Top Road to Hiddenbrooke Parkway, is located immediately adjacent to the western segment of the project alignment. Appendix B, Page B-8 of the Final EIR/EIS has been revised to evaluate potential indirect project impacts to the segment, especially during construction. Further, the revised section discusses the project's beneficial impact of completing

the gap between the between the existing segments of the Ridge Trail between Green Valley Road and McGary Road.

**Response to Comment 14-6**

As discussed in response to comments 14-4 and 14-5 above, page B-8 of Appendix B has been revised in this Final EIR/EIS to acknowledge a new segment of the Bay Area Ridge Trail that was dedicated by the City of Fairfield and the Ridge Trail Council in September 2010. The revised section discusses the project's beneficial impact of completing the gap between the between the existing segments of the Ridge Trail between Green Valley Road and McGary Road.

As indicated in the comment, the project would remove the existing I-80 bike path from Red Top Road/SR12 West along I-80 to Green Valley Road and replace it with a bike path along the extension of Business Center Drive to SR12 West and Red Top Road/I-80 interchange. Segments of the Ridge Trail north and south of the project area could be connected through the project area following Business Center Drive to Green Valley Road as described in the comment letter.

**Response to Comment 14-7**

The pedestrian and bike improvements that would be constructed as part of the project are adequately described and shown in the Draft and Final EIR/EIS in Chapter 2 under the heading "Bicycle and Pedestrian Facilities" and on project maps (see Figures 2-2 and 2-3).

Letter 15

"Meier, Andrea J SPN" <Andrea.J.Meier@usace.army.mil>

10/14/2010 02:52 PM

To "Howell Chan" <howell\_chan@dot.ca.gov>  
cc "Ahmad Hashemi" <ahmad\_hashemi@dot.ca.gov>,  
"Zachary Gifford" <zachary\_gifford@dot.ca.gov>,  
"Durio, Hal E SPN contractor" <Hal.E.Durio@usace.army.mil>  
Subject Comments on the I-80/I-680/SR-12 Interchange Project DEIR/DEIS

Dear Howell-

I would like to transmit my comments on the Interstate 80/Interstate 680/State Route 12 Interchange Project Draft Environmental Impact Report/Environmental Impact Statement, dated August 2010.

The purpose of the project is to reduce congestion; reduce cut-through traffic; encourage use of the HOV lanes and ridesharing; improve traffic safety; accommodate current and future truck traffic; and facilitate adequate enforcement by the CHP at the truck scales. The conclusion I made after reviewing the traffic modeling results is that both Alternative B and Alternative C would have minor to moderate improvements in vehicle hours of delay and vehicle speeds when projected out to 2035. Basically, Alternative B and Alternative C would maintain the level of service in the face of growth in the region. This indicates that even after implementing Alternative B or Alternative C congestion issues will remain a problem. Both Alternative B and Alternative C would have a beneficial impact to circulation for trucks entering and exiting the scales and improve the CHP's enforcement capabilities.

15-1

This following comment refers to the elevated structure in the Red Top Road interchange area proposed for Alternative C, Phase 1. I am not sure how you determined that the elevated structure over Green Valley fault should be designed to handle a minor displacement up to 1.9 feet. Is this an acceptable level of displacement given the maximum magnitude earthquake from the fault is a 6.75? Also, what type of structure displacement (lateral, vertical, etc) does this refer to or does it refer to ground displacement? What does this requirement affect in the bridge design? Have any preliminary designs for the elevated structure been considered that take in to account slope, orientation in regards to the fault movement, and other factors? I think most of the answers can be found in the draft geotechnical reports referenced in the Geology/Soils/Seismic/Topography section. If possible, can I get a copy of these electronically?

15-2

Large groups of impacts to sensitive aquatic resources occur in two locations in the project corridor: the Green Valley Creek vicinity and Pennsylvania Avenue area south of State Route 12. Alternative C would impact less wetlands within or near the Green Valley Creek Corporate mitigation site. Alternative C would also have a slightly reduced footprint in the area south of State Route 12 at Pennsylvania Avenue, resulting less impacts to waters of the U.S. Although the overall impacts for both alternatives do not differ significantly for a project of this scale, Alternative C appears to provide a plan that is less damaging to the larger groupings of aquatic resources than Alternative B. Alternative C would also have fewer temporary impacts to waters of the U.S. than Alternative B (4.52 acres versus 8.06 acres).

15-3



Lastly, I would like to point out that there is a remnant from a cut-and-paste action on page 3.16-14. There is a sentence that refers to Sacramento Regional Transit, which is outside of the geographical scope of this DEIR/DEIS.

15-4

Please let me know if you have a timeframe of when you would like to schedule a LEPDA concurrence checkpoint meeting or would expect a LEDPA determination based on the review of the DEIR/DEIS.

Thank you for the opportunity to participate early on in the development of this document as a cooperating agency.

Sincerely,

Andrea Meier, Sr. Regulatory Project Manager San Francisco District, U.S. Army  
Corps of Engineers  
1455 Market Street, 16th Floor  
San Francisco, California 94103-1398  
P (415) 503-6798  
F (415) 503-6690  
andrea.j.meier@usace.army.mil

***Comment Letter 15, Andrea Meier, Sr. Regulatory Project Manager, San Francisco District, U.S. Army Corps of Engineers, 10/14/10***

***Response to Comment 15-1***

Comment noted. The analysis provided in the Draft EIR/EIS indicates that under both alternatives congestion would remain, but would be improved over the no build alternative. In addition to improving truck circulation and CHP enforcement capabilities, the project would also increase distances between interchanges, thereby reducing weaving and potential accidents.

***Response to Comment 15-2***

A fault rupture characterization study was prepared for the Green Valley and Cordelia fault zones. The report's methodology and findings were reviewed and approved by the Department's Geologists and a peer review was performed by the USGS and the California Geological Survey staff. The study identified fault trace locations and likely maximum vertical and horizontal displacements which the Department's Division of Structures (DOS) concurred could be accommodated with the design of the respective elevated structures. A copy of the Fault Rupture Analysis has been provided to the USACE.

***Response to Comment 15-3***

Comment noted. While the differences in impact to aquatic resources between the two alternatives are minimal, Alternative C is slightly less damaging.

***Response to Comment 15-4***

The text in Section 3.1.6 of the Final EIR/EIS has been corrected to read Solano Regional Transit.

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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Sacramento Fish and Wildlife Office  
2800 Cottage Way, Room W-2605  
Sacramento, California 95825-1846

Letter 16



In Reply Refer To:  
81420-2009-TA-0857-1

October 18, 2010

Mr. Howell Chan  
California Department of Transportation  
111 Grand Avenue  
P.O. Box 23660  
Oakland, California 94623-0660

Subject: Draft Environmental Impact Report for the Interstate 80/Interstate 680/State Route 12 Interchange Project in Solano County, California (EA 0A5300)

Dear Mr. Chan:

This is in response to the draft Environmental Impact Report for the Interstate 80/Interstate 680/State Route 12 Interchange Project in Solano County, California. At issue are the potential adverse effects of the proposed project on the endangered Contra Costa goldfields (*Lasthenia conjugens*), designated critical habitat for the Contra Costa goldfields, threatened vernal pool fairy shrimp (*Branchinecta lynchi*), endangered vernal pool tadpole shrimp (*Lepidurus packardii*), endangered callippe silverspot butterfly (*Speyeria callippe callippe*), endangered showy Indian clover (*Trifolium amoenum*), threatened valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), threatened California red-legged frog (*Rana draytonii*), designated critical habitat for the California red-legged frog, threatened California tiger salamander (*Ambystoma californiense*), and wildlife. The U.S. Fish and Wildlife Service (Service) is issuing this letter under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act), and the Service's Mitigation Policy of 1956. Our comments and recommendations are provided to assist you with your environmental review of the project and are not intended to preclude future comments from Service.

16-1

The comments and recommendations in this letter are based on: (1) *Interstate 80/Interstate 680/State Route 12 Interchange Project Solano County, California District 4-SOL-80 (PM 10.8/17.0; SOL-680 (PM 10.0/13.1); SOL-SR 12 (PM 1.7/2.8); and SOL-SR-12 (PM 1.8/4.8) EA# 0A5300, Project # 04-0000-0150 Draft Environmental Impact Report/Environmental Impact Statement Volume One (DEIR) dated August 2010 that was prepared by the California*





Mr. Howell Chan

Department of Transportation (Caltrans); (2) various telephone conversations and meetings between the Caltrans and the Service; (3) meetings between the Caltrans, Service, and Solano Transportation Authority (STA), and (4) other information available to the Service.

Our comments and recommendations are limited to our review of the Preferred Alternative C in the DEIR, and hereafter in this letter will be referred to as the proposed project.

It is our understanding, the project encompasses the Interstate 680 and State Route 12 interchanges along Interstate 80 in the vicinity of the cities of Fairfield and Suisun City. The purpose of the project is to realign the interchanges and relieve traffic congestion throughout the area. The project covers approximately 13 miles of roadway including the three highways and relocation of the westbound Interstate 80 Cordelia Truck Scales, and modification and extension of existing surface streets. The project area is characterized by natural areas, such as streams, riparian corridors, vernal pools, wetlands, woodland, and open grassland communities, and also urban and agricultural land. The proposed project will include construction and the addition of infrastructure adjacent to existing urban areas, as well as in natural areas with listed species and significant value to wildlife.

16-1  
cont.

Section 9 of the Act prohibits the take of the vernal pool fairy shrimp, vernal pool tadpole shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, California red-legged frog, California tiger salamander, and other federally listed species by any person subject to the jurisdiction of the United States. As defined in the Act, take is defined as "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harass means an intentional or negligent act or omission which creates the likelihood of injury to a listed animal by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to breeding, feeding, or sheltering." "Harm has been further defined to include habitat destruction when it injures or kills a listed species by interfering with essential behavioral patterns, such as breeding, foraging, or resting. Thus, listed species are protected from such activities as collecting and hunting, but also from actions that result in their death or injury due to the damage or destruction of their habitat. The Act prohibits activities that "...remove and reduce to possession any listed plant from areas under Federal jurisdiction; maliciously damage or destroy any such species on any such area; or remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any law or regulation of any State or in the course of any violation of a State criminal trespass law." The term "person" is defined as "...an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal government, of any State, municipality, or political subdivision of a State, or any other entity subject to the jurisdiction of the United States."

16-2

Take incidental to an otherwise lawful activity may be authorized by one of two procedures. If a Federal agency is involved with the permitting, funding, or carrying out of the project and a listed species is going to be adversely affected, then initiation of formal consultation between that agency and the Service pursuant to section 7 of the Act is required. Such consultation would result in a biological opinion addressing the anticipated effects of the project to the listed species and may authorize a limited level of incidental take. If a Federal agency is not involved in the project, and federally listed species may be taken as part of the project, then an incidental take

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| <p>Mr. Howell Chan</p> <p>permit pursuant to section 10(a)(1)(B) of the Act should be obtained. The Service may issue such a permit upon completion of a satisfactory conservation plan for the listed species that would be taken by the project. Since Caltrans has been delegated authority from the Federal Highways Administration, section 7 is the most appropriate process for this project.</p>   | <p>16-2<br/>cont.</p> |
| <p>Our specific comments and recommendations on the DEIR are as follows:</p>   |                       |
| <p>1. Avoidance, Minimization, and/or Mitigation Measures. We concur with the DEIR that the Interstate 80/Interstate 680/State Route 12 Interchange Project, as proposed, may affect the vernal pool fairy shrimp, vernal pool tadpole shrimp, callippe silverspot butterfly, valley elderberry longhorn beetle, and California red-legged frog. The proposed project likely will affect the critical habitat for the California red-legged frog and the Contra Costa goldfields. Throughout the Biology Section in the DEIR, it is stated that the implementation of avoidance, minimization, and/or mitigation measures will “ensure” that the proposed project will not result in adverse effects to the listed species. For the majority of the biological resources, the proposed measures may result in minimization of adverse effects, however, they are unlikely to ensure they will not occur, or eliminate the potential for them. Therefore, we recommend Caltrans obtain authorization for incidental take of the appropriate listed species via section 7 of the Act prior to certification of the final environmental document. If the Service authorizes incidental take for these listed animals, we recommend the Caltrans incorporate the <i>Conservation Measures</i> and <i>Reasonable and Prudent Measures</i> from the biological opinion into the appropriate permits and contracts.</p> | <p>16-3</p>           |
| <p>2. Definition of Temporary Effects. We were unable to locate the definition of “temporary effects” in the DEIR. In regards to listed species, “temporary effect” is defined as habitat disturbed by the project that will be restored to baseline or higher habitat values within one year of the initial disturbance.</p>  | <p>16-4</p>           |
| <p>3. Definition of Action Area: Action area is defined at 50 CFR 402.02, as all areas to affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.</p>  | <p>16-5</p>           |
| <p>4. Accessibility to Study Area during Assessment. Portions of the proposed project area are apparently located outside the existing transportation right-of-way. We were unable to find a discussion of the limitations of the studies and analyses in the DEIR. We request clarification as to whether there were areas that were inaccessible that necessitate investigation following eventual access, including protocol surveys. It is our understanding that some areas, such as the Mangels’ property, were accessible for a limited time, however, protocol surveys for the callippe silverspot, showy Indian clover, and other listed species in these areas currently are incomplete.</p>   | <p>16-6</p>           |
| <p>5. California Tiger Salamander. Based on the available information, we do not concur that the study is outside of the range of the California tiger salamander (Page 3.3-117 of the DEIR). We recommend that a site assessment and, if appropriate, a survey for this</p>   | <p>16-7</p>           |

Mr. Howell Chan

animal, be completed following the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* dated October 2003 that was prepared by the Service and the California Department of Fish and Game. Special attention should be given to the State Route 12 area east of Interstate Highway 80.

16-7  
cont.

6. Showy Indian Clover. We recommend that a survey for the showy Indian clover be completed in the action area following *Protocols for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* dated September 23, 1996, that was prepared by the Sacramento Fish and Wildlife Office, and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* dated November 24, 2009, that was prepared by the California Department of Fish and Game. Survey results generally are valid for two (2) calendar years after the date of their completion. The written results of the protocol survey should be provided to the Service and the California Department of Fish and Game for review and approval.

16-8

7. Contra Costa Goldfields. The DEIR notes Contra Costa goldfields is an annual plant species whose germination can vary from year to year. Therefore, the amount of potential habitat that may harbor the seed bed for this endangered species within the action area is a more accurate method of analyzing the effects to Contra goldfields, rather than on the acres of critical habitat within the propose project or the number of individual plants found in a given year. In addition, we have concerns regarding the proposed mitigation of salvaging and transplanting individual Contra Costa goldfields. We recommend that the issue regarding the Contra Costa goldfields and its designated critical habitat be resolved prior to certification of the final environmental documents.

16-9

8. Callippe Silverspot Butterfly. Based on the discussion provided in the DEIR the effects analysis for the callippe silverspot butterfly this endangered animal is incomplete. Two populations of its food plant, johnny jump-up (*Viola pedunculata*) were identified in 2004, but it is unclear if and when larval and adult butterfly surveys were completed. The survey report on this endangered animal described in the DEIR should be provided to the Service and the California Department of Fish and Game for review. The discussion in the DEIR is limited to the location of the larval food plant. During the early summer flight season, the adult females lay their eggs on the undersides of leaves and stems of johnny jump-up or in the vicinity of these plants. Adult callippe silverspot butterflies frequently engage in hilltopping, which is a behavior where adults congregate on hilltops or ridgelines for the purpose of locating mates. Hilltops and ridges play an important role in callippe breeding behavior, and these geographic features are often located away from the larvae foodplants. Losing hilltops and ridgelines from habitat areas likely decreases the ability of the animals to locate mates and likely reduces genetic diversity over the long-term. The proposed extension of Redtop Road bisects the two identified host plant populations. The potential effects associated with fragmenting these two host plant populations should be included in the analysis in the environmental documents. The 2004 surveys for the host plant described in the DEIR are outdated and an adequate

16-10

Mr. Howell Chan

survey should be completed prior to initiation of section 7 consultation. Survey results for the larval foodplant generally are valid for two (2) calendar years after the date of their completion. We also recommend that the final environmental document include an adequate discussion of the effects of the loss or reduction in hilltop and ridgeline breeding habitat.

16-10  
cont.

9. Valley Elderberry Longhorn Beetle. The DEIR states that no exit holes were observed in any elderberry stems measuring 1.0 inch or more in diameter at ground level within the project area. However, Table 3.3.5-5 states that at least two elderberry shrubs (*Sambucus* species) did have exit holes.

16-11

10. California Red-Legged Frog. The California red-legged frog should have been listed on page 3.3-38 in the DEIR as one of the special-status animal species that have been observed in the study area. On page 3.3-41 it states that preconstruction surveys for western pond turtle (*Actinemys marmorata*) will be conducted immediately preceding construction activities in the creeks and near ponds. Creeks and ponds near the construction areas may also be habitat for California red-legged frogs. Information should be provided on the location of aquatic features that could support turtles and red-legged frogs.

16-12

16-13

On page 3.3-86 of the DEIR states that there were wetlands within the project area that were too shallow to provide aquatic habitat for the California red-legged frog. We assume that this is a reference to using aquatic habitat for breeding. Aquatic habitat that is too shallow for breeding can still be utilized by frogs for foraging, resting, and other essential behaviors. Annual rainfall in California is highly variable such that aquatic habitat can be suitable for successful breeding in one year but not the next.

16-14

11. The DEIR stated that that the extension of Redtop Road is likely to have substantial effects on the California red-legged frog and critical habitat unit SOL-2. Although we have not seen a design profile for the road, based on the large construction footprint we assume that Caltrans/STA plan to create an even road profile by constructing a major road cut through the Mangels' property. This design will likely result in significant fragmentation of the landscape and ecosystem functions. It appears that the majority of the approximately 1.3-mile road segment from Business Center Drive to State Route 12 and then south to Interstate 80 will be bordered by road cuts that limit the potential for movement of this listed amphibian or incorporation of culverts or passages across the road. The large undercrossing that will be designed for cattle that was described in the DEIR likely will provide an adequate safe crossing for a portion of the number of California red-legged frogs that likely are moving to and from the breeding pond on the Mangels' property. However, limiting the crossing to one site likely will have adverse effects on the continued ability of the primary constituent elements to function in this portion of California red-legged frog critical habitat unit SOL-2. The Mangels' pond likely is one of the primary breeding sites for this critical habitat unit and we are concerned that the project, as currently proposed, likely will isolate or reduce access to it. In addition, State Route 12 represents an existing challenge for California red-legged

16-15



Mr. Howell Chan

frogs to access summer aestivation and forage habitat within Jameson Canyon Creek. A key conservation need for the Jameson Canyon Lower Napa River Core Recovery Area is to protect these dispersal corridors (Service 2002). Planned infrastructure changes to State Route 12 likely will exacerbate the barrier effects as the roadway is widened and median barriers are installed. State Route 12 through Jameson Canyon imperils the connectivity between critical habitat units SOL-1, SOL-2, and SOL-3.

16-15  
cont.

12. The DEIR does not include specific information regarding how, where, and when habitat compensation for the California red-legged frog, vernal pool fairy shrimp, vernal pool tadpole shrimp will be achieved. We recommend that compensation be located as close to the action area as possible. All lands conserved should be permanently protected under a conservation easement, management plan, and an endowment based on the results of a property analysis record (PAR), all three of which have been approved by the Service and the California Department of Fish and Game prior to groundbreaking at the project.

16-16

13. The on-going loss and reduction in natural habitat for listed species and wildlife in this portion of Solano County and southern Napa County is of concern to the Service. The proposed project will reduce habitat in the Cordelia Hills for the California red-legged frog, and wildlife, including black-tailed deer (*Odocoileus hemionus*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*), and possibly American badger (*Taxidea taxus*) and also reduce or possibly eliminate their ability to move between the Coast Range. Much of the Cordelia Hills and associated Coast Range are undeveloped, however, the proposed Interstate 80/Interstate 680/State Route 12 Interchange Project, coupled with other planned and recently completed transportation and urban projects and conversion of grassland to vineyards will continue the reduction and loss of wildlife corridors, as well as fragmentation of natural habitat. The elimination of the availability of natural habitat likely will eliminate or decrease the ability of the California red-legged frog, Callippe silverspot butterfly, and wildlife, especially medium to large sized animals, to survive in the Cordelia Hills over the long term because they likely will be adversely affected by increased fragmentation caused by urban development and roadway construction and improvements, increased mortality from vehicles, predators, lack of cover, resting areas, forage, genetic problems, mortality resulting from predation by domestic cats (*Felis domesticus*) and dogs (*Canis lupus familiaris*), and other human-caused factors. To deal with these indirect and cumulative adverse effects from various projects and actions, and based on the Wildlife Crossing meeting that was held by Caltrans, California Department of Fish and Game, and the Service on October 13, 2010, this area of Solano and Napa counties may be the appropriate location to identify wildlife crossings for enhancement and protection.

16-17

14. Wildlife Fencing. The final environmental document should include a discussion of fencing that can be constructed at the project to prevent access to the highway by listed species and wildlife, as well as direct them to locations and structures where they may safely cross the roadway.

16-18

Mr. Howell Chan

Though the intent of wildlife culverts and crossings are to ensure safe passage of listed species and wildlife, they are also a benefit to human safety. Deer-automobile collisions, estimated by the Insurance Information Institute to occur at a rate of 500,000 per year, result in over \$1 billion worth of vehicular damages, 29,000 human injuries, and 200 human fatalities each year (Cornell University 2007). Culverts large enough to accommodate species such as deer (*Odocoileus* species) and mountain lion, while maintaining substrates for the California red-legged frog and smaller wildlife, could reduce roadway collisions for a variety of species. For example, wildlife crossings of the Trans-Canada Highway in Canada's Banff National Park have reduced wildlife road mortality by 80%, and as much as 96% for ungulates (Robbins 2003).

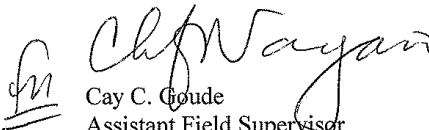
16-18  
cont.

15. The construction of the roadway from Business Center Drive to Redtop Road likely will isolate a breeding pond for the California red-legged frog, and an important source of drinking water in this area for medium- and large-sized native mammals. We recommend that there be at least two large undercrossings in addition to the one currently planned for cattle, as well as appropriately designed culverts on this portion of the project that will allow access to this critical resource by these species.

16-19

We are interested in working with Caltrans and STA in the resolution of the issues regarding endangered species and wildlife. Please contact John Cleckler or Chris Nagano at the letterhead address, via electronic mail ([John\\_Cleckler@fws.gov](mailto:John_Cleckler@fws.gov); [Chris\\_Nagano@fws.gov](mailto:Chris_Nagano@fws.gov)), or at telephone 916/414-6600 if you have any questions regarding this response on the DEIR for the Interstate 80/Interstate 680/State Route 12 Interchange Project.

Sincerely,

  
Cay C. Goude  
Assistant Field Supervisor  
Endangered Species Program

cc:

Scott Wilson, Greg Martinelli, Melissa Escaron, California Department of Fish and Game,  
Yountville, California

Jolanta Uchman, State Water Resources Control Board, Oakland, California

Janet Adams, Solano Transportation Authority, Suisun City, California

Zachary Gifford and Ahmad Hashemi, California Department of Transportation, Oakland,  
California

Lisa Webber, Stephanie Myers, and Shahira Ashkar, ICF Jones & Stokes, Sacramento, California

Mr. Howell Chan

Literature Cited

Cornell University. 2007. Management of Wildlife Damage in Suburban and Rural Landscapes.  
<http://wildlifecontrol.info/ne1005>. Accessed December 2007.

Robbins, E. 2003. No More Road Kill: What it takes to make highways friendly to animals.  
Planning. February 2003, Volume. 69, No. 2, pages 33-34.

U. S. Fish and Wildlife Service. 2002. Recovery Plan for the California Red-legged Frog (*Rana  
aurora draytonii*). Portland, Oregon. viii + 173 pp.

***Comment Letter 16, Cay C. Goude, Assistant Field Supervisor, Endangered Species Program, United States Department of the Interior, Fish and Wildlife Service, 10/18/10***

***Response to Comment 16-1***

Comment noted.

***Response to Comment 16-2***

Comment noted.

***Response to Comment 16-3***

The Department has obtained incidental take authorization for the following species: callippe silverspot butterfly, vernal pool fairy shrimp, vernal pool tapdole shrimp, valley elderberry longhorn beetle, and California red-legged frog. The Biological Opinion was issued on April 16, 2012.

Furthermore, the text has been revised in Section 3.3.4 of the Final EIR/EIS to remove the word “ensure” in this context. Instead the document now reads:

“Implementation of...will reduce the project’s effect on....”

***Response to Comment 16-4***

A definition of temporary impacts has been provided on the first page of Section 3.3 of the Final EIR/EIS.

***Response to Comment 16-5***

“Action area” is a term used in the Biological Assessment and Biological Opinion. It is concurrent with the Biological Study Area, which is defined in Section 3.3 of the Final EIR/EIS.

***Response to Comment 16-6***

A discussion of methods, explaining the study limitations for each study has been added to the Affected Environment sections of Section 3.3 in the Final EIR/EIS. This discussion also addresses whether preconstruction surveys are to be conducted or presence is to be inferred, as appropriate.

***Response to Comment 16-7***

The Department coordinated with USFWS and DFG to determine project effects on California tiger salamander. A discussion of California tiger salamander was added to the Final EIR/EIS as Section 3.3.5.7. The USFWS concurred with a "not likely to adversely affect" determination for CTS in the BO dated April 16, 2012.

***Response to Comment 16-8***

An avoidance, minimization and/or mitigation measures discussion has been added to the Final EIR/EIS as Section 3.3.5.2 that requires preconstruction surveys for showy Indian clover in locations of the project area where access is currently prohibited and submittal of survey results to the USFWS and DFG.



**Response to Comment 16-9**

The discussion of mitigation for Contra Costa Goldfields in Section 3.3 of the Final EIR/EIS has been revised to reflect impacts and mitigation based on potential habitat in the project area (seasonal wetland and alkali seasonal marsh) that could support a seed bed for the goldfields. In addition, mitigation for impacts under two alternatives (C and C, Phase 1) now includes modification of the project design to include a retaining wall that will avoid direct impacts on potential Contra Costa goldfield habitat south of SR 12E. The Biological Opinion (BO) was issued on April 16, 2012, and measures in the BO have been incorporated into the Final EIR/EIS, including the retaining wall south of SR 12E, fencing and monitoring requirements, seasonal construction timing, and compensation under Alternatives B and C.

**Response to Comment 16-10**

No surveys were conducted for callippe silverspot butterfly during the project because the habitat area was not accessible. The previous study (Monk & Associates 2004) that is cited also did not include larval and adult surveys. The Final EIR/EIS has been revised to clarify that biological staff did not have access to the property (Section 3.3.5.3). USFWS issued a BO on April 16, 2012 including a final determination of project effects on callippe silverspot butterfly and its habitat and appropriate conservation and mitigation measures. The effects include the temporary and permanent loss of hilltop and larval host plant habitat and ridgeline breeding habitat, as well as harm and harassment and habitat fragmentation. Measures to avoid and minimize and compensate for these effects in the BO have been incorporated into the Final EIR/EIS and include surveys to identify larval host plants; fencing, construction timing and method requirements; and restoration, revegetation, and compensation.

**Response to Comment 16-11**

The table is correct. The sentence stating that there are no exit holes has been deleted from the Final EIR/EIS.

**Response to Comment 16-12**

California red-legged frog has been added to the discussion in the Final EIR/EIS. The sentence in Section 3.3.4 of the Final EIR/EIS reads:

“Four of the 18 special-status wildlife species that could occur in the study area (California red-legged frog, burrowing owl, northern harrier, and western pond turtle) have been observed in the study area.”

**Response to Comment 16-13**

Though western pond turtle and CRLF do share some of the same habitats, these species are not discussed in the same section because CRLF is a threatened and endangered species and western pond turtle is not. In keeping with the outline of the document, CRLF habitat is addressed in Section 3.3.5, Threatened and Endangered Species. The same habitats, ponds and creeks, as well as upland habitat, were identified as suitable for both species. Text in Sections 3.3.4.1 and 3.3.5.6 of the FEIR/EIS has been changed to indicate shared habitat.

**Response to Comment 16-14**

The following sentence was added to the Affected Environment discussion in Section 3.3.5.6.

“Aquatic habitat includes creeks, ponds, marshes, and seasonal drainages that may not all be suitable for breeding but may be used for other essential activities including foraging, dispersing, and cover.”

**Response to Comment 16-15**

Comment noted.

The Department and STA will provide several design features that will facilitate habitat connectivity and passage for CRLFs dispersing west from the Mangels pond over the Business Center Drive Extension (BCDE) and out into designated critical habitat. These design features are listed below and have been added to the FEIR/EIS under the Avoidance, Minimization and/or Mitigation heading in Section 3.3.5.6.

- A large 12- by 8-foot concrete box culvert at Jameson Canyon Creek crossing of OW-8 located at I-80.
- A free span bridge over Jameson Canyon Creek at OW-8a, OW-8b, and the SPRR west of the Red Top Road intersection.
- An oversized culvert (60 inches in diameter) for OW-161, with a natural substrate (dirt or gravel) over which wildlife can travel. At least two large span style undercrossings along the BCDE in the vicinity of the seasonal drainage (OW-145) north of Mangels pond, and near W-187, suitable for cattle and farm vehicles to cross under the BCDE that connects the I-80/Red Top Road interchange to Business Center Drive.
- Approximately 2.5 miles of directional fencing (Figure 4-5) to guide CRLF to the undercrossing locations along the BCDE. The fencing will consist of hard plastic or a combination of permanent hardware cloth and flashing with a lip on it, or similar material and design. Directional fencing will be attached to the newly installed ROW fence on both sides of the new highway constructed between Business Center Drive and I-80 (Figure 4-5). The fence will be constructed along Business Center Drive, which is a local road off the state highway system, and its long-term maintenance will be the responsibility of STA.

**Response to Comment 16-16**

The Department and STA are consulting with the Solano Land Trust, property owners, and USFWS to identify mitigation/compensation areas as close as possible to the action area and devise a mitigation/compensation plan. The Department and STA agree that mitigation should be addressed prior to groundbreaking for the project. In some cases (for instance, vernal pool fairy shrimp), mitigation banking may be an option due to lack of suitable areas.

**Response to Comment 16-17**

See response to comment 16-15. The Department and STA are providing several undercrossings suitable for larger wildlife species as well as for CRLF.

**Response to Comment 16-18**

A measure to “Incorporate Design Features to Minimize Indirect Effects from New Road Construction that was developed in coordination with USFWS” has been added to the Final EIR/EIS in Section 3.3.5.6. This measure is intended to reduce road related mortality for wildlife species.

**Response to Comment 16-19**

Two large under-crossings and one culvert along the new road connecting Red Top Road and Business Center Drive are possible from an engineering perspective and will be incorporated into the project. The under-crossings will be approximately 14-feet high and will be able to accommodate cattle as well as wildlife. The culvert will lead to a drainage with CRLF. The fact that the road in this location is in a cut section precludes the use of additional culverts or tunnels for frogs. This information has been added to the Final EIR/EIS beginning in Section 3.3.5.6.



## CITY OF FAIRFIELD

Founded 1856

Letter 17

Incorporated December 12, 1903

### PUBLIC WORKS DEPARTMENT

#### COUNCIL

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Vice-Mayor  
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Human Resources  
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\*\*\*

Police  
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Public Works  
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October 11, 2010

#### CALTRANS DISTRICT 4

Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS 8-B  
Oakland, CA 94623-0660

#### Re: I-80/I-680/SR 12 Draft Environmental Impact Statement/Environmental Impact Report

Dear Mr. Chan:

The City of Fairfield has reviewed the **I-80/I-680/SR 12 Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR)**. Thank you for the opportunity to review and comment on this document.

The City strongly supports the proposed interchange project addressed in this combined environmental document. The City's preferred alternative is Alternative C, which we believe will minimize negative impacts on the City of Fairfield and will help address the serious traffic congestion issues now facing the community.

17-1

Overall, the DEIS/EIR appears to adequately analyze and address the environmental issues associated with a project of this scope. The City does however have concerns about relocation of businesses in the City of Fairfield and of mitigation of noise impacts, as well as a few other corrections and comments which the City believes should be addressed in the final EIS/EIR. Please feel free to call Brian Miller at 707-428-7446 or myself at 707-428-7485 if you have any questions.

17-2

Sincerely,

GEORGE R. HICKS  
Public Works Director

ELB:GRH:BKM:ccs

c: Fred Beiner, Erin Beavers, Wayne Lewis, Garland Wong, Brian Miller



## City of Fairfield Comments: DEIS/EIR

### **2-7 Project Alternatives-Water Line Relocation**

The DEIR/EIS states that the project will result in the relocation of water lines, including lines owned by the City of Fairfield. Due to the scope and complexity of the project, we realize that the extent of the relocations is not fully known at this time. The City is concerned about potential impacts to our customers related to these future relocations and asks that CALTRANS coordinate closely with the City and require that shutdowns and other service interruptions be disallowed where practical or minimized to the greatest extent practicable to avoid significant impacts to the City's water customers.

17-3

### **3.1.4 Relocation and Property Impacts**

CALTRANS assumes that any take less than 50% of a parcel's area constitutes a "partial take" which may not in all cases require relocation. However, even partial takes can eliminate necessary parking, vehicle storage, outdoor storage, and access to the site. We would like confirmation that this issue will be addressed during right-of-way negotiations and that property and business owners will be fully compensated for impacts to their property resulting from the project.

17-4

The City is also concerned about the assumption that the availability of vacant commercial and industrial land in the vicinity of the project or Fairfield/Suisun more generally will reduce or eliminate impacts. Displaced businesses may not find relocation possible or easy in a manner which avoids serious disruption to the business or the local economy. The City of Fairfield requests that Fairfield businesses displaced by the project be relocated within the City of Fairfield to the extent feasible to reduce impacts to the local economy.

17-5

### **3.1.6-13 Transportation-Construction Impacts**

We request that CALTRANS work closely with the City to minimize impacts on local streets during construction of the project in 2015. We are particularly concerned about traffic congestion from staging of the project and timing/location of street closures.

17-6

### **3.1.6-38 Transportation-Intersection Improvements**

It is indicated that the project will include coordination with the City to design and construct intersection improvements. The City requests that CALTRANS work closely with the City during design and project design to ensure that impacts to local streets are minimized and that proposed local roadway and intersection improvements are feasible and meet City standards.

17-7

### **3.1.6 Transportation/Bicycle/Pedestrian Facilities**

- Lopes Road Bicycle Lanes. The Class II Bicycle Lanes on Lopes Road between Cordelia Road and Gold Hill Road are intermittent. The segment nearest Cordelia Road lacks bicycle lanes entirely and it is unlikely the current right of way would permit bicycle lanes along the full length of Lopes Road. 17-8
- Lopes Road Bicycle Path. There is no completed bicycle path connecting Lopes Road and Watt Drive. There exists one short dead end segment of paved bicycle path connected to Lopes Road. 17-9
- Transit Service Typo. Page 204: Under "Transit Service" a typographical error references "Sacramento Regional Transit Service". 17-10
- LOS E Definition. On Page 3.1.6-2 – Paragraph 3, Line 3, the text indicates that "LOS E...." means roadways are "at capacity" while Table 3.1.6-2 indicates that LOS E is defined as "approaching capacity". Please clarify. 17-11
- Pittman Road. Page 3.1.6-4 – Existing (2004) Traffic Operations bullet point five should mention Pittman Road as well. 17-12

### **3.1.7 Visual and Aesthetic Resources**

The DEIR/EIS should reference the Communities Gateways design concepts outlined in the adopted Fairfield Gateways Implementation Plan. The design concepts include tree planting plan, native plant palette, monument signage, and other elements designed to announce entry into the City of Fairfield. In addition, STA has undertaken a planning effort for the I80 corridor which addresses community design and gateway issues. CALTRANS should confirm that it will work with the City to incorporate design features identified in these planning documents as feasible. 17-13

#### **3.1.7-15 Visual Mitigation Measures**

The project will have impacts on landscaping and other visual features, with the specifics determined as project design is finalized. It is indicated that landscaping removed shall be replaced to ensure a less than significant visual character impact. CALTRANS should confirm that they will work with the City to minimize loss of visually significant landscaping with a focus on developing a visually attractive freeway corridor. 17-14

### **3.1.8 Air Quality**

Page 421. The DEIS/EIR refers to "modify(ing) local zoning and develop(ing) guidelines to separate emissions from sensitive receptors" as one mechanism for minimizing impacts from MSAT and other pollutants. The City of Fairfield has entered into a development agreement with one major local property owner that restricts the City's ability to rezone property without the active consent of the property owner. In addition, much of the corridor is already developed with homes and businesses. The opportunity to implement zoning changes is therefore limited in portions of the project area. 17-15

### **3.2.7 Noise Impacts**

The DEIS/EIR analysis uses federal Noise Abatement Criteria (NAC) standards to determine if there is a significant impact that must be mitigated. These standards differ from City of Fairfield noise standards. For residential uses, the Fairfield Noise Ordinance limits outdoor noise to 60 dB CNEL. This can be compared to the quite higher NAC standard of 67 dB. Given that existing noise levels exceed City of Fairfield standards and approach NAC standards in many cases, we are concerned that CALTRANS is not incorporating significant efforts to reduce noise impacts on City of Fairfield residential neighborhoods, even when said efforts would be more expensive than the Caltrans standard.

17-16

Many of the sites selected for noise studies by CALTRANS already exceed City of Fairfield standards for noise sensitive residential and motel/hotel (transient residential) land uses. Sites in Subarea H also exceed the CALTRANS NAC standard for residential land uses.

17-17

While the height and cost of new noise barriers may be prohibitive, we are concerned that the project will not effectively address new noise impacts created by the facility. It is indicated that the feasibility of sound barriers is not clear at this time, yet no additional mitigation measures are provided to reduce any noise impact that exceeds significance criteria. The City requests that CALTRANS propose mechanisms to meet the City's noise ordinance standards.

17-18

### **Bay Ridge Trail**

The DEIS/EIR should reference the planning underway for a Bay Area Ridge Trail alignments in the project area. While trails are not currently officially designated by the City of Fairfield, Solano County, or CALTRANS, Bay Area Ridge Trail connections across Highway 12 are currently under study by the Solano Transportation Authority.

17-19

**Comment Letter 17, George R. Hicks, Public Works Director, City of Fairfield, Public Works Department, 10/11/10**

Response to Comment 17-1

Comment noted.

Response to Comment 17-2

Comment noted. Please see responses to comments 17-4, 17-5, 17-16, 17-17, and 17-18.

Response to Comment 17-3

The Department is committed to working closely with the City to ensure that the disruption to water supply and other utilities is avoided or minimized. This commitment is noted in Sections 3.1.5 of the Draft EIR/EIS and 3.1.5 of the Final EIR/EIS. No changes were made to the Final EIR/EIS.

Response to Comment 17-4

The assumptions used in the Draft EIR/EIS regarding displacement of property were used to provide a consistent comparison between alternatives. During the final design and right-of-way negotiation process a more exhaustive assessment of specific impacts to each property including affects on parking, storage and access will be undertaken. Property owners will be compensated in full accordance with Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Response to Comment 17-5

The text in Section 3.1.4 of the Final EIR/EIS is amended as follows:

**“To the extent feasible, Fairfield businesses displaced by the project will be relocated within the city of Fairfield.** Because the proposed project would provide for the equitable relocation of occupants and businesses, and there are sufficient commercial opportunities and available land in the area for the relocation of businesses and industry, no avoidance, minimization, and/or mitigation measures would be required.”

Response to Comment 17-6

The Department is committed to working with the City to minimize impacts on local streets during construction. This commitment is reflected in the avoidance and minimization measure to prepare a Transportation Management Plan in Sections 3.1.5 and 3.1.6 of the Final EIR/EIS.

Response to Comment 17-7

The Department is committed to coordinating with the City of Fairfield, as well as other local agencies, in the design and construction of intersection improvements, as stated in Sections 3.1.6 of the Draft EIR/EIS and Section 3.1.6 of the Final EIR/EIS.

Response to Comment 17-8

The list of Class II Bicycle Lanes in Section 3.1.6 of the Final EIR/EIS has been updated to show that Lopes Road only has bicycle lanes between Gold Hill Road and Red Top Road.



**Response to Comment 17-9**

The connection between Lopes Road and Watt Drive is paved on the eastern half and unpaved on the western half; however, it is an off-street path that bicycles are permitted to use. Therefore, it is considered a Class I Multi-Use path, and the list of Class I Multi-Use Paths shown in Section 3.1.6 of the Draft and Final EIR/EIS will remain unchanged.

**Response to Comment 17-10**

The Final EIR/EIS has been corrected.

**Response to Comment 17-11**

LOS E, in the context of freeway analysis, represents at-capacity operations per Department standard practice. In the context of intersection analysis, LOS E represents operations as they approach capacity. The text in Section 3.1.6 of the Final EIR/EIS has been updated to note that the LOS E referred to is for the freeway analysis.

**Response to Comment 17-12**

Pittman Road has been added to the list of local roadways studied in Section 3.1.6 of the Final EIR/EIS.

**Response to Comment 17-13**

The avoidance, minimization and/or mitigation measures in Section 3.1.7 states that project features such as sound walls, overpass structures, landscaping, and other freeway-related structures will be consistent with the corridor aesthetic recommendations for the I-80 corridor being prepared by the STA. The recommendations being prepared by STA are being coordinated with the Cities along the corridor to address community design and gateway issues and therefore should address the commenter's concern.

**Response to Comment 17-14**

The text in Section 3.1.7 of the Final EIR/EIS under "Replace landscaping as appropriate" is revised as follows:

**"The Department will replace highway planting within the project limits per policy. The Department will work with the City of Fairfield during development of highway planting plans."**

**Response to Comment 17-15**

Comment noted. Comment refers to text in Section 3.2.6 of the Draft EIR/EIS and Final EIR/EIS.

This is one of several measures to reduce MSAT emissions that will be reviewed for their practicality and efficacy. The Department does not rely on land use changes alone to minimize air quality impacts.

**Response to Comment 17-16**

For federally funded projects such as the I-80/I-680/SR 12 Interchange Improvement project, noise studies are required to conform to traffic noise standards specified in 23CFR772 and the Department's protocol. Noise abatement criteria outlined in 23CFR772 and the Protocol were

used to identify traffic noise impacts and to determine whether noise abatement must be considered for noise sensitive locations within the project study area. The study conducted for the project conformed to these standards. In addition, potential noise impacts under CEQA criteria were also considered and discussed in Chapter 4, Section 4.1.2.10.

**Response to Comment 17-17**

Comment noted. Because the I-80/I-680/SR 12 Interchange Improvement project is federally funded with Department oversight it is required to conform to the noise analysis requirements and standards specified in 23CFR772 and the Department's Protocol. The commenter is correct that in many cases traffic noise levels at noise sensitive locations studied in the Draft EIR/EIS either already exceed or would likely exceed outdoor noise limits specified in the City of Fairfield ordinance. Noise analyses were performed according to the Department's protocol and standards specified in 23CFR772, as required for federally funded projects. In addition, potential noise impacts under CEQA criteria were also considered and discussed in Chapter 4, Section 4.1.2.10. 23CFR772 and the Department's Protocol require that noise abatement be considered in areas where traffic noise impacts are predicted (i.e. where traffic noise levels approach or exceed noise abatement criteria specified in the Protocol). There are locations where the noise abatement criteria are predicted to be exceeded and noise abatement has been considered as required.

**Response to Comment 17-18**

For reasons discussed in response to comment 17-17 City noise standards are not applied to this project. However the Department did evaluate potential noise impacts under CEQA criteria in Chapter 4, Section 4.1.2.10. Under 23CFR772 and the Department's Protocol, residential areas that contain areas of outdoor frequent human use (backyards) are eligible for noise abatement evaluation where traffic noise levels approach or exceed the NAC for a given land use (Activity Category B for residential receivers). Noise barriers are generally indicated as the standard and most effective form of noise abatement, because of the noise reduction that can be achieved for outdoor areas at multiple first- and second-row receivers. Other forms of noise abatement may be considered where severe noise impacts are predicted, such as noise sensitive locations where traffic noise levels exceed 75 dBA  $L_{eq}$ . In such cases, residences may be considered for other forms of noise abatement such as improved building sound insulation on a case-by-case basis if barriers are not reasonable and feasible. However, noise abatement techniques such as soundproofing residences do not address exterior noise levels and may not result in a minimum 5 dB of noise reduction in all cases. Therefore noise insulation has not been evaluated as a form of noise abatement for this project. Federal funds may be used to construct soundwalls that are reasonable and feasible. Non-federal funds may be used for noise abatement when federal funds are restricted.

**Response to Comment 17-19**

The Bay Area Ridge Trail is addressed in the Draft and Final EIR/EIS in Appendix B on pages B-8 and B-9. The discussion of the Bay Area Ridge Trail has been updated in Sections 3.1.1.3 and B.1.1.1 of the Final EIR/EIS. Also see responses to comments 14-4 and 14-5.

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**JAEGER McHUGH & COMPANY, LLC**

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Office: (415) 433-3281 Fax: (415) 433-6529

**Letter 18**

October 15, 2010

Caltrans, District 4  
Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660

Dear Mr. Chan,

Thank you for taking the time to arrange for us to meet with Caltrans, STA and consultant staff on Thursday October 7, 2010 at the Caltrans District 4 office. The purpose of the meeting was to review the Draft Environmental Impact Report/ Environmental Impact Statement for the Interstate 80/Interstate 680/State Route 12 Interchange Project and register our strong objection to the choice of Alternative C as the preferred alternative.

As indicated in the meeting, 495, 497 & 499 Edison Court ("Edison Court"), a property that we manage on behalf of local individual investors, all of whom are retirees, will be dramatically and adversely impacted by the choice of Alternative C, a full realignment of I-680 through the heart of the Cordelia Industrial Park.

18-1

These local investors acquired Edison Court (along with Jaeger McHugh & Co) in 2007, due to its unique location between I-80, I-680 and SR 12. Their goal is to renovate and reposition it as a premier multi-tenant facility in Solano County that would ultimately provide stable income, long term value appreciation and a hedge against inflation. Toward that goal, management has already invested significant additional capital to renovate over 90% of the interiors of the uniquely high clear height suites as leases have rolled, replaced all three roofs with new Title 24 compliant roof systems under warranty, completely stripped to the backing rod and repainted all three buildings with high quality elastomeric paint, and added site amenities such as lighting and docks.

While we fully support progress in all its forms for the County and State, we cannot allow the ownership of Edison Court to be forced to prematurely sell its long-term investment at a loss in today's uniquely depressed economic climate for the benefit of the State. The investors of Edison Court have an average age over seventy years. Each has worked hard over their lives and deserves their retirement. Many rely on their Edison Court investment for long-term security and income during their retirement years. A loss could result in a major and, in some cases, life threatening impact.

18-2

In reviewing the EIR report, we found several inconsistencies in the details that should have favored Alternative B as the preferred alternative. We fear that the EIR report is not

18-3



**JAEGER McHUGH & COMPANY, LLC**

■ 500 Washington Street, Suite 450, San Francisco 94111 ■  
Office: (415) 433-3281 Fax: (415) 433-6529

an accurate reflection of the true environmental impacts of both alternatives, and especially an accurate reflection of the amount of destruction that would result in the choice of Alternative C, a complete realignment of an interstate through an existing community that, and as a result, would surely be forced to bear the brunt of its impact. For example, the new interchange alignment is to be located within ten feet of the Angelo Rodriguez High School.

18-3  
cont.

18-4

In reviewing the traffic impact of both alternatives, in Table S-1, by 2035, the ultimate impact of reduced Vehicle Hour Delays (VHD) for Phase 1 will be down 100% for am peak hours and 47% for pm peak hours in Alternative B, but only down 18% for am peak hours and 16% for pm peak hours in Alternative C. Further the duration of congestion is greater under Alternative C. Since Phase 1 of both alternatives represents the main difference between them (either expansion of an existing right of way or realignment to construct an entirely new interchange), we are not sure how the overall conclusion, as rated in the final measure of effectiveness (MOE) that relates to travel times and reducing traffic, can be rated as the same for both alternatives.

18-5

In reviewing the construction cost estimates, in Table 2-4, the estimate of final costs of Alternative B (a widening of the existing right of way) are actually greater than that of Alternative C (an acquisition of an entirely new right of way and construction of an entirely new interchange for realignment). In the detail of construction costs in Phase 1, the entirely new interchange in Alternative C results in only a \$56 million additional construction charge over Alternative B. This cost estimate does not seem accurate, especially since the new interchange will be constructed directly over the Green Valley fault line (last earthquake of 6.7 magnitude).

18-6

Further, the additional right of way costs for the new interchange alignment of Alternative C results in only a \$34 million additional charge over Alternative B. This cost estimate does not seem accurate. The new right of way acquisition for Alternative C will result in the complete acquisition and demolition of at least eleven fully developed industrial buildings in the park, many brand new or fully renovated structures, totaling at least 500,000 square feet, not to mention 'partial' land takings of fully developed sites, and 'full' or 'partial' takings of undeveloped land within the park or nearby. The right of way detail found in Appendix 1 – Property Impacts lists all parcels except one property as a 'partial' taking.

18-7

Finally, the lower overall costs for Alternative C are only realized in the final phase of the project (by 2035), principally in lower costs for roadway items. It is unclear what these savings would be as there is no detail. We do not believe the construction costs for the new interchange (as well as its entirely new right of way) have been accurately estimated. As a result, those faced with condemnation by Alternative C will very likely be forced to make up of the difference, by selling to the State at fire sale values when the hard costs of this new interchange ultimately come in higher than estimated, which they surely will.

18-8

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In our meeting on October 7<sup>th</sup>, our understanding is that Caltrans, STA staff and consultants all reconfirmed that under Alternative C, Edison Court would be a 'full' taking, rather than 'partial' taking as listed in Appendix 1. In addition, it was confirmed that we would receive advance notice of and have the opportunity to fully escort any property appraiser appointed to appraise Edison Court, and that any appraisal done would fully conform to MAI standards. We would also like the opportunity to review the draft report to ensure that there are no material inaccuracies before the final is completed.

18-9

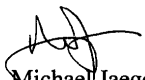
18-10

18-11

Due to the magnitude of Alternative C, the much greater community and property damage and destruction that will be caused needlessly, when Alternative B is almost assuredly less costly, easier to construct and more effective, and the disastrous effect that Alternative C would almost certainly have to the existing community and the local retirees who have invested to improve Edison Court as part of their safe retirement, we implore Caltrans to wisely choose Alternative B as the preferred alternative.

18-12

Sincerely yours,

  
Michael Jaeger

  
Bob McHugh

Cc: R.A. Macpherson, Deputy District Director Right of Way, Caltrans District 4  
Linda Emadzadeh, Air Space, Excess Land & LPA Services, Right of Way, Caltrans District 4  
Nicholas Endrawos, Solano County Project Management, Caltrans District 4

**Comment Letter 18, Michael Jaeger and Bob McHugh, Jaeger McHugh & Company, LLC, 10/15/10**

Response to Comment 18-1

Comment noted.

Response to Comment 18-2

Cost estimates for anticipated right of way acquisition were provided by a real estate appraisal and acquisition firm with long-term experience on Department highway projects. The right of way costs were based on estimated values for general types of land uses from late 2008. They are estimates only, not the final determined value. Right of Way acquisition offers will be based on fair market value (FMV) appraisals conforming to the “Uniform Relocation Assistance and Real Property Acquisition Policy Act” (URAA).

The formal appraisal process will begin once the environmental clearance process is completed, the funds become available for right of way and construction and sufficient design development is completed to confirm right of way requirements. This could be several years after the environmental process is completed.

Response to Comment 18-3

The environmental document reflects the results of years of technical studies and analyses, and consultation with agencies. It is the goal of the Department to disclose to the public all environmental effects that could result from the project in compliance with state and federal environmental regulations. Section 2.4 of the Draft and Final EIR/EIS provides a comparison of the two build alternatives and Section 2.5 of the Final EIR/EIS “Identification of the Preferred Alternative” outlines the reasoning for the selection of Alternative C as the preferred alternative. Alternative C provides superior traffic operations and offers a more favorable construction phasing and staging opportunities. While the overall environmental impacts are similar, Alternative C would move the highway further from the Village of Cordelia Historic District, reducing impacts.

Both build alternatives and their fundable first phases were fully evaluated and their effects on the environment disclosed in the EIS/EIR. The environmental review process under NEPA and CEQA also involves consultation with a number of local, state and federal agencies including the U.S. EPA and USACE to determine the least environmentally damaging practicable alternative. On March 15, 2012 and April 10, 2012, the U.S. EPA and USACE respectively agreed that the LEDPA was Alternative C, Phase 1. This process is documented in Section 5.2 of the Final EIR/EIS.

Response to Comment 18-4

The realignment of Lopes Road has been changed since the Draft EIS/EIR to fully avoid any affect to the grounds of Rodriguez High School including the softball field. The Final EIR/EIS has been revised to reflect this change (See Appendix B, Resources Evaluated Relative to the Requirements of Section 4(f), page B-7).

**Response to Comment 18-5**

The benefits to vehicle-hours of delay and travel times for Alternatives B-1 and C-1 are different, as described in Table S-1 and Section 3.1.6 of the Draft and Final EIR/EIS, and as noted in the comment. The Draft EIR/EIS does not state an overall conclusion that the two alternatives are the same in reference to these specific measures. However, the Draft EIR/EIS does state that both alternatives produce benefits relative to the No Build alternative in many of the MOEs. (See Tables 3.1.6-6 through -9 in Section 3.1.6 of the Draft EIR/EIS and Tables 3.1.6-6 through 3.1.6-11 in the Final EIR/EIS.)

**Response to Comment 18-6**

Cost estimates for all alternatives were developed through an established and recognized methodology, which looks at a combination of right of way costs, utility relocation costs, construction costs, related support costs, and escalation. Cost estimates for anticipated right of way acquisition were provided by a real estate appraisal and acquisition firm with long-term experience on Department highway projects. Cost estimates for utility relocation costs were developed and discussed with utility owner for reasonableness. Cost estimates for roadway and construction costs were based on unit prices from summaries of recent Department construction bid openings. Project support costs were assumed to be a fixed percentage of construction costs (the same percentage for all alternatives). Escalation costs were the same for each alternative.

A Cost Estimate Certification form was prepared for the project estimates and approved by the Department. Subsequently FHWA staff reviewed the cost estimate prepared for Alternative C-1 and analyzed it in a probabilistic cost simulation program.

A fault rupture and displacement hazard study was performed for both the Green Valley and Cordelia fault zones to determine location of fault traces and potential magnitude of displacement during a seismic event. The report, accepted by the Department, was a factor in the preliminary bridge structure design and resultant cost estimate.

An alternative's cost estimate is not a factor used in the selection of a project's preferred alternative.

**Response to Comment 18-7**

Cost estimates for anticipated right of way acquisition were provided by a real estate appraisal and acquisition firm with long-term experience on Department highway projects. The right of way costs were based on estimated values for general types of land uses from late 2008. They are estimates only, not the final determined value. Right of Way acquisition offers will be based on fair market value (FMV) appraisals conforming to the "Uniform Relocation Assistance and Real Property Acquisition Policy Act" (URAA).

The formal appraisal process will begin once the environmental clearance process is completed, the funds become available for right of way and construction and sufficient design development is completed to confirm right of way requirements. This could be several years after the environmental process is completed.



**Response to Comment 18-8**

As noted in responses to comments 18-6 and 18-7, the costs are estimated using an established and recognized methodology and then reviewed by the Department. Further, costs for Alternative C-1 were tested by FHWA using their cost simulation program and determined to be acceptable.

Right of way acquisition costs will be independently appraised and will not be based on the estimates included in the environmental document. The right of way acquisition costs are independent of other project costs, including construction costs. This means that FMV for property as determined by a certified real estate appraiser will be offered regardless of other project costs

**Response to Comment 18-9**

The Draft EIR/EIS in Tables 3.1.4-3 and 3.1.4-4 indicate that the business located at 494, 495 and 499 Edison Court would be displaced under Alternative C and Alternative C, Phase 1. Table 3.1.4-4 inaccurately indicated 499 Edison Court as 399 Edison Court. This has been corrected in the Final EIR/EIS.

**Response to Comment 18-10**

As noted in response to comment 18-7, the right of way acquisition process, including appraised values and final compensation are based on procedures included in the Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended which includes an opportunity for the owner to accompany the property appraiser in their field review of the subject property.

**Response to Comment 18-11**

As noted in response to comment 18-7, the right of way acquisition process, including appraised values and final compensation are based on procedures included in Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The details of the final appraisals will be provided to property owners for review.

**Response to Comment 18-12**

As discussed in response to comment 18-3, both build alternatives and their fundable first phases were fully evaluated and their effects on the environment disclosed in the EIS/EIR. The environmental review process under NEPA and CEQA also involves consultation with a number of local, state and federal agencies including the U.S. EPA and USACE to determine the least environmentally damaging practicable alternative. On March 15, 2012 and April 10, 2012, the U.S. EPA and USACE respectively agreed that the LEDPA was Alternative C, Phase 1. This process is documented in Section 5.2 of the Final EIR/EIS.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

Letter 19

October 18, 2010

Howell Chan  
California Department of Transportation  
District 4  
P.O. Box 23660  
Oakland, California 94623-0660

Subject: Draft Environmental Impact Statement for the Interstate 80/Interstate  
680/State Route 12 Interchange Project, Solano County, California (CEQ  
#20100342)

Dear Mr. Chan:

The Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. EPA has previously provided feedback on this project through the *National Environmental Policy Act and Clean Water Act Section 404 Integration Process for Surface Transportation Projects Memorandum of Understanding* (NEPA/404 MOU). EPA appreciates the efforts made by the project development team to coordinate through the NEPA/404 MOU process. Our detailed comments are enclosed.

EPA has rated this document EC-2, *Environmental Concerns, Insufficient Information*. Please see the enclosed *Summary of EPA Rating Definitions* for a description of our rating system. Our rating is based on concerns about impacts to wetlands and waters of the United States, air quality, environmental justice communities, and the transportation benefits of the project. We also have recommendations regarding historic resource consultation and agricultural land preservation.

We appreciate the opportunity to review this Draft Environmental Impact Statement and look forward to future coordination on the project. The next steps in the NEPA/404 MOU process are agreement on the 1) Least Environmentally Damaging Practicable Alternative (LEDPA), the only alternative that is permissible pursuant to the Clean Water Act Section 404(b)(1) Guidelines, and 2) the conceptual mitigation plan. We look forward to receiving future information from Caltrans regarding the LEDPA and conceptual mitigation plan. When the Final Environmental Impact Statement is released

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for public review, please send two hard copies to the address above (mail code: CED-2) at the same time the document is filed with our EPA Headquarters office.

If you have any questions, please contact me (415-947-4161; [dunning.connell@epa.gov](mailto:dunning.connell@epa.gov)) or Carolyn Mulvihill, the lead reviewer for this project, at 415-947-3554 or [mulvihill.carolyn@epa.gov](mailto:mulvihill.carolyn@epa.gov).

Sincerely,



Connell Dunning, Transportation Team Supervisor  
Environmental Review Office

Enclosures:

Summary of EPA Rating Definitions  
EPA's Detailed Comments

cc: Janet Adams, Solano Transportation Authority  
John Cleckler, U.S. Fish and Wildlife Service  
Jacqueline Pearson-Meyer, National Marine Fisheries Service  
Andrea Meier, U.S. Army Corps of Engineers  
Brendan Thompson, Regional Water Quality Control Board  
Melissa Escaron, California Department of Fish and Game

EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE INTERSTATE 80/INTERSTATE 680/SR-12 INTERCHANGE PROJECT, OCTOBER 18, 2010

**Wetlands and Other Waters of the United States**

EPA has participated in this project as outlined in the *National Environmental Policy Act and Clean Water Action Section 404 Integration Process for Surface Transportation Projects Memorandum of Understanding* (NEPA/404 MOU). The next steps in the NEPA/404 MOU process are agreement on the Least Environmentally Damaging Practicable Alternative (LEDPA) and the conceptual mitigation plan (Checkpoint 3).

The following additional information is needed to support the NEPA/404 MOU process and justify selection of the LEDPA and conceptual mitigation plan. This information should be provided in the Final Environmental Impact Statement (FEIS) and in the future request for agreement on the LEDPA and the conceptual mitigation plan.

*Recommendations:*

- |  |      |
|--|------|
| <ul style="list-style-type: none"> <li>Engage EPA, the Army Corps of Engineers, and other resource agencies in the identification of the LEDPA before publication of the FEIS, as outlined in the NEPA/404 MOU.</li> </ul>   | 19-1 |
| <ul style="list-style-type: none"> <li>Identify in the FEIS and in the LEDPA agreement request the length of time temporary fill in waters of the U.S. will be left in place. Temporal losses should be minimized to the maximum extent practicable (e.g. by placing and removing fill as construction progresses). Discuss in the FEIS how this will be achieved. Caltrans may be required to provide compensatory mitigation for "temporary" impacts if fill is left in place for an extended period of time.</li> </ul>   | 19-2 |
| <ul style="list-style-type: none"> <li>In the FEIS, consider indirect impacts to wetlands, including impacts from alteration of hydrology. Section 3.3.2.3 and 3.3.2.5 state that the project may result in indirect impacts caused by sedimentation or modification of hydrology of adjacent wetlands. However, the DEIS does not address the extent of these impacts or whether mitigation is necessary to offset indirect impacts. The FEIS should discuss whether any wetlands outside the roadway footprint will be permanently affected by indirect impacts from the proposed project. Avoidance, minimization, and mitigation of these impacts should also be discussed.</li> </ul> | 19-3 |
| <ul style="list-style-type: none"> <li>Confirm that all compensatory mitigation for waters of the U.S. will comply with the EPA/U.S. Army Corps of Engineers 2008 Compensatory Mitigation Rule (40 CFR Part 230, Subpart J).</li> </ul>  | 19-4 |
| <ul style="list-style-type: none"> <li>Include in-kind compensation as a mitigation option in the FEIS and conceptual mitigation plan. Sections 3.3.2.1 and 3.3.2.2 of the DEIS present two options for compensatory mitigation of federally jurisdictional drainages: (1) purchase credits from an approved mitigation bank, or (2) compensate out of kind. Caltrans must also</li> </ul>   | 19-5 |

|  |               |
|--|---------------|
| consider in-kind compensation for all waters of the U.S., including drainages. Only if in-kind compensation is found to be impracticable can out-of-kind compensation be considered. Therefore, the FEIS, and conceptual mitigation plan, should add in-kind restoration or enhancement to the compensatory mitigation options for drainages.  | 19-5<br>cont. |
| <ul style="list-style-type: none"><li>Section 3.3.2.3 identifies impacts to a previous compensatory mitigation area adjacent to Green Valley Creek. Since this area was intended to compensate for impacts of the Green Valley Corporate Park Project, Caltrans will need to mitigate for impacts to the Green Valley Creek mitigation area at a minimum 2:1 ratio. The actual ratios for all compensatory mitigation will be determined in consultation with the appropriate regulatory agencies. However, the FEIS should specifically identify the impacts to previous mitigation areas and the need to compensate for these impacts at a higher ratio.</li></ul> | 19-6          |
| <ul style="list-style-type: none"><li>Section 3.3.2.3 identifies onsite restoration as an option for compensation of permanent impacts to perennial, alkali, and seasonal wetlands. The plans and performance standards presented in this section for onsite restoration may be inadequate. Mitigation plans, including ratios, type, monitoring, and performance standards, will need to be coordinated with and approved by the resource and regulatory agencies.</li></ul>  | 19-7          |
| <i>Suisun Marsh</i>  |               |
| Given the special designation of Suisun Marsh by the Suisun Marsh Protection Act and the status of the Suisun Marsh wetlands as impaired under the Clean Water Act Section 303(d), EPA is concerned about impacts to jurisdictional seasonal drainages and other areas in the Suisun Marsh Secondary Management Area. We encourage Caltrans to avoid and minimize impacts to this area to the maximum extent practicable and document those avoidance and minimization measures in the FEIS.   | 19-8          |
| <i>Recommendation:</i>   |               |
| <ul style="list-style-type: none"><li>Avoid and minimize impacts to the Suisun Marsh Secondary Management Area to the maximum extent practicable and document those avoidance and minimization measures in the FEIS. Identify the specific measures that will be taken to ensure no further impairments to Suisun Marsh.</li></ul>   |               |
| <b>Air Quality</b>   |               |
| <i>Affected Environment</i>  |               |
| The Affected Environment section of the DEIS includes some unclear information. The prevailing winds are described as “easterly,” though they come from the west. It is also unclear from this section whether the air pollutant movement described is occurring from the Central  | 19-9          |

2



Valley to the Bay Area, or vice versa, and what the significance of this information is. The description of elevated pollutant levels should also be expanded to explain whether it refers to the project area or a regional area, and what is the directional source (e.g. from the west) of the pollutants.

19-9  
cont.

*Recommendation:*

- Clarify the Affected Environment information in the FEIS, including prevailing winds, and air pollutant sources and movement. Provide additional context for how this information affects pollutant levels and receptors.

*Project Conformity*

The DEIS states that only Alternative C, Phase 1 is included in the 2035 Regional Transportation Plan and Transportation Improvement Program. If Alternative B is chosen as the preferred alternative in the FEIS, the alternative must be included in the Regional Transportation Plan and Transportation Improvement Program to meet conformity requirements.

The DEIS also states that the build alternatives are not considered Projects of Air Quality Concern (POAQC), which determines whether a PM<sub>2.5</sub> hot spot analysis is required. The DEIS states that confirmation of this determination will be made during interagency consultation with the appropriate local, state, and federal agencies and the final analysis will be identified in the final environmental document.

EPA participated in the October 4, 2010 Air Quality Conformity Task Force meeting where this project was discussed. It is our understanding that the group did not reach a decision as to whether the project is a POAQC and that Caltrans/Solano Transportation Authority will be providing additional information to the group. This consultation process should be completed prior to publication of the FEIS. If the group determines that the project is a POAQC, then a PM<sub>2.5</sub> hot spot analysis must be performed and the results included in the FEIS.

*Recommendations:*

- As stated in the DEIS, if Alternative B is chosen as the preferred alternative in the FEIS, the alternative will need to be included in the Regional Transportation Plan and Transportation Improvement Program to meet conformity requirements.
- Complete consultation with the Air Quality Conformity Task Force to determine whether the project is a POAQC. If so, perform a PM<sub>2.5</sub> hot spot analysis and report the results of that analysis in the FEIS. Include proposed mitigation measures for any impacts determined in that analysis.

19-10

19-11

*Mobile Source Air Toxics*

EPA commends Caltrans for identifying the general locations of sensitive receptors in the project area and performing a quantitative mobile source air toxics (MSAT) emissions analysis

19-12

of the project alternatives. We note that the DEIS acknowledges that all project alternatives may result in increased exposure to MSAT emissions in certain locations, but since dispersion modeling was not performed, it is not possible to determine where and at what level that exposure would occur.

The DEIS states that “available technical tools do not enable us to predict the project-specific health impacts of the [MSAT] emission changes associated with the project alternatives.” EPA, FHWA, and Caltrans have an ongoing dialogue regarding the technical tools available for analysis of MSAT impacts. Tools for evaluating project-specific health impacts from MSATs do exist and EPA would like to work with Caltrans to identify appropriate and available methods for evaluating MSAT impacts to include in the FEIS.

19-12  
cont.

*Recommendations:*

- Technical tools are available to analyze the MSAT impacts of the various alternatives at specific locations and EPA recommends their use to determine impacts on sensitive receptors near the proposed project.
- Commit to the mitigation measures listed in the DEIS to reduce MSAT impacts.

19-13

**Transportation Impacts**

The Traffic and Transportation chapter contains certain data that indicates that Alternative C, Phase 1 may not achieve the goal of accommodating current and future traffic volumes and other resulting benefits that are stated in the Purpose and Need of the project. Table 3.1.6-6 contains System Wide Measures of Effectiveness for Construction-Year 2015, A.M. Peak Hour Conditions, and indicates that Travel Times and Maximum Individual Delay would be higher for the Westbound I-80 to Southbound I-680 travel direction with Alternative C, Phase 1 than with the No-Build alternative. Table 3.1.6-9 contains System Wide Measures of Effectiveness for Design-Year 2035, P.M. Peak Hour Conditions, and indicates that Travel Times and Maximum Individual Delay would be higher for all listed travel directions with Alternative C, Phase 1 than with the No-Build alternative.

19-14

Considering the lack of identified funding for the complete Alternative C, EPA is concerned with Alternative C, Phase 1’s apparent degradation of travel times when compared to the No-Build alternative. If Alternative C, Phase 1 is chosen as the Preferred Alternative in the FEIS, Caltrans must provide evidence that this alternative would fulfill the project’s Purpose and Need if Phase 2 were not to be built.

*Recommendations:*

- If Alternative C, Phase 1 is chosen as the Preferred Alternative, the FEIS, as well as the request for agreement on the preliminary LEDPA, must justify that this alternative would fulfill the Purpose and Need, when compared to the No-Build Alternative. The justification should include a discussion of the modeling results and

19-15

the transportation costs and benefits of Alternative C, Phase 1 relative to the No-Build and Alternative B, Phase 1. This is important since the DEIS states that Alternative C, Phase 1 would increase travel times and delay relative to the No-Build Alternative. The discussion should also address how the modeled increases in travel times could be decreased through design measures or through Transportation Demand Management or Transportation System Management.

19-15  
cont.

- If Alternative C, Phase 1 cannot be proven to fulfill the Purpose and Need of the project, Alternative B, Phase 1, or other alternatives, must be considered.

19-16

### Project Alternatives

Chapter 2 of the DEIS states "Under both alternatives, I-80 and I-680 would be widened. I-80 would be widened to a minimum of ten lanes...and a maximum of 19 lanes east of the interchange with I-680...I-680 would be widened to a minimum of six lanes...and a maximum of eight lanes." It is unclear from this project description whether the footprint of the project has been determined (e.g. that I-80 will be 10 lanes in certain areas and up to 19 lanes in other areas along the corridor) or whether the number of lanes is still being determined. The project description in the FEIS should be clarified to specify the number of lanes that will be constructed at locations within the project area, and to clarify that the subsequent impact analyses reflect the impacts of that footprint.

19-17

#### Recommendation:

- Clarify in the FEIS the number of lanes that will be constructed at locations within the project area and base the impact analysis on that footprint. Update the Affected Environment section of the FEIS, if necessary, to ensure that the impact analysis is representative of the widest footprint that may be built.

### Environmental Justice

The Environmental Justice Section of the DEIS (3.1.4.3) identifies Census Tract Block Groups in the project area that would be considered environmental justice communities. However, the DEIS only considers the displacement impacts on those communities. The environmental justice analysis should consider all project impacts on affected communities. As stated in the DOT Order on Environmental Justice:

*"Adverse effects means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons,*

19-18

*businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities.”<sup>1</sup>*

The FEIS should include an environmental justice analysis that considers all impacts on environmental justice communities. EPA notes in particular that the majority of the residences affected by noise impacts are located in an environmental justice community. A noise barrier to mitigate impacts at this location was considered feasible, but not cost-reasonable, according to the DEIS analysis.

19-18  
cont.

*Recommendations:*

- Perform an environmental justice analysis that considers all potential project impacts on environmental justice communities.
- Document impacts and proposed mitigation in the FEIS.
- If mitigation of noise impacts to environmental justice communities is deemed not “cost-reasonable,” justify this determination in terms of the relation of mitigation cost to project cost. Provide information on how Caltrans determined the base cost-per-residence allowance of \$31,000. Also provide the context for this determination by providing examples of other Caltrans projects where sound barriers were incorporated. Discuss any variation that exists in the determination of the threshold for the cost-per-residence for multiple Caltrans projects (in District 4 and outside District 4) and what factors deem the mitigation for this project not cost-effective if mitigation at similar cost has been implemented in other projects.

19-19

**Historic Resources and Parkland**

The DEIS states that coordination efforts between Caltrans and the State Historic Preservation Officer (SHPO) are currently underway regarding the SHPO’s concurrence on the finding of no adverse effect on the identified historic resources. EPA recommends that consultation be completed and that a Programmatic Agreement (PA) be executed prior to publication of the FEIS and any mitigation commitments be documented in the Record of Decision (ROD). We also recommend that Caltrans receive concurrence from the City of Fairfield on the finding of de minimis impacts under Section 4(f) on the Fairfield Linear Park prior to publication of the FEIS.

19-20

*Recommendations:*

- Complete consultation with the SHPO and execute a PA prior to publication of the FEIS. Commit to any mitigation measures in the ROD.

<sup>1</sup> Department of Transportation (DOT) Order To Address Environmental Justice in Minority Populations and Low-Income Populations, 1997.

- Confirm concurrence on the de minimis finding for the Fairfield Linear Park with the City of Fairfield prior to publication of the FEIS

19-21

### Agricultural Land

EPA commends Caltrans on its commitment to mitigate loss of land classified as “Prime Farmland” and land under agricultural conservation easements by obtaining conservation easements to preserve a corresponding acreage of Prime Farmland. As stated in the DEIS, the City of Fairfield General Plan Land Use Element includes the program, “Where land is identified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland...and is proposed for conversion to urban uses, the city shall arrange for preservation of an equal amount of the same class of farmland within the area.” Given this program, the goals of other local plans, and the importance of agriculture to the economy and character of the area, EPA recommends that Caltrans work with the local jurisdictions and other groups such as the Solano County Land Trust, to mitigate for losses of all farmland classified as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

19-22

#### *Recommendation:*

- In addition to compensation for Prime Farmland and land under agricultural conservation easement, compensate for impacts to Farmland of Statewide Importance and Unique Farmland through similar preservation efforts. Include in the FEIS and ROD the specific measures that will be taken to compensate for these impacts.

### Climate Change

While the federal government has not yet released final guidance on greenhouse gas analysis, a discussion of potential climate change impacts of the project, and on the project, should be included in NEPA documents. The Council on Environmental Quality released draft *NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions*<sup>2</sup> in February 2010.

19-23

#### *Recommendation:*

- Include the climate change discussion in the main body of the FEIS.

<sup>2</sup> <http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf>



## SUMMARY OF EPA RATING DEFINITIONS\*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

### ENVIRONMENTAL IMPACT OF THE ACTION

#### *"LO" (Lack of Objections)*

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### *"EC" (Environmental Concerns)*

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### *"EO" (Environmental Objections)*

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

#### *"EU" (Environmentally Unsatisfactory)*

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

### ADEQUACY OF THE IMPACT STATEMENT

#### *"Category 1" (Adequate)*

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

#### *"Category 2" (Insufficient Information)*

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

#### *"Category 3" (Inadequate)*

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

**Comment Letter 19, Connell Dunning, Transportation Team Supervisor,  
Environmental Review Office, United States Environmental Protection Agency,  
10/18/10**

**Response to Comment 19-1**

Per the NEPA/Section 404 MOU, coordination with federal and state agencies, and concurrence or agreement on the LEDPA is required before proceeding with the approval of the final environmental document and the Record of Decision. The Department has engaged the U.S. EPA, Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game and the Regional Water Quality Control Board, and NOAA's National Marine Fisheries Service regarding the identification of the LEDPA. Section 5.2 of this Final EIR/EIS discusses the consultation and identification of Alternative C, Phase 1 as the LEDPA. LEDPA concurrence has been obtained from these agencies and included in Appendix H.

**Response to Comment 19-2**

Temporary fill in the form of coffer dams would be left in waters of the U.S. for less than one year in all cases. Impacts that persist for less than one year are considered temporary by the USACE. Construction at Green Valley Creek will take multiple seasons, but coffer dams will not be left in place during the wet season. The definition of temporary impact has been added to the impact discussions in Sections 3.3.2.1, 3.3.2.2, and 3.3.2.3 of the Final EIR/EIS.

**Response to Comment 19-3**

The text has been revised to include a discussion of indirect impacts on wetlands in Sections 3.3.2.3, 3.3.2.4, and 3.3.2.5. Mitigation is necessary to avoid these potential indirect impacts, therefore, the avoidance and minimization measure in Section 3.3.2.1 (Protect Water Quality and Prevent Erosion and Sedimentation into Drainages and Wetlands) was revised to include exclusion fencing and silt fencing during construction. Because the avoidance and minimization measures will prevent the indirect impacts, no additional compensatory mitigation for indirect impacts on wetlands is included in the Final EIR/EIS.

**Response to Comment 19-4**

All mitigation for waters of the US will be developed in coordination with the USACE and will comply with the Compensatory Mitigation Rule. This language has been added to the required components in the mitigation measures for riparian and wetland compensation in Sections 3.3.2 and 3.3.2 of the Final EIR/EIS.

**Response to Comment 19-5**

For impacts to perennial streams, the RWQCB will require riparian mitigation. In-kind compensation is included for all waters of the US except for seasonal and perennial drainages, which are mitigated out-of-kind with riparian habitat. Text has been revised in Sections 3.3.2 and 3.3.2 of the Final EIR/EIS to reflect this.

**Response to Comment 19-6**

The compensatory wetland mitigation site located near Green Valley Creek would be affected under Alternative B. The wetland mitigation measure in Section 3.3.2 of the Final EIR/EIS has been revised as indicated below, to specify minimum 2:1 for impacts on this particular feature.

“In compliance with the CWA Section 404 permit and WDRs, the permanent loss (fill) of wetlands, including perennial marsh, alkali seasonal marsh, and seasonal wetland, will be compensated for and measures will be taken to ensure no net loss of habitat functions. Loss of wetlands will be compensated for at a minimum ratio of 1:1 (one acre of mitigation for every one acre filled), **except for any loss of wetlands in W-45e-1 that are a mitigation area and will require mitigation at a minimum ratio of 2:1.**”

**Response to Comment 19-7**

Compensation for permanent loss of wetlands may be a combination of mitigation bank credits and restoration/creation of habitat. The portion of the measure addressing compensation through restoration or creation of habitat in Section 3.3.2.3 “Compensate for Permanent Loss of Wetlands” of the Final EIR/EIS has been revised to indicate that mitigation will occur near the project site, as opposed to on-site. There are currently no plans for on-site creation or enhancement of wetlands, because the areas available for mitigation are small and isolated. Text has been added to the measure to indicate that the wetland restoration plan would be developed in coordination with the RWQCB and USACE. Details of plans and performance standards will be developed in close coordination with the USACE and RWQCB as part of the NEPA/Section 404 MOU process.

**Response to Comment 19-8**

Efforts to avoid and minimize impact to the Suisun Marsh Secondary Management Area primarily included engineering the interchange to occupy the smallest footprint possible. During the initial and secondary screening process a number of alternative interchange configurations were reviewed and compared to determine which configurations provided safe and adequate traffic operations for projected traffic, while minimizing impacts to sensitive habitat. The most practical solution, and the one with the least impact to sensitive areas, is to improve existing facilities rather than constructing improvements on new alignments. During final design, more detailed foundation analysis and design refinement will be performed to identify opportunities (such as retaining walls, reduced roadway profiles, etc.) that would reduce impacts to sensitive areas. Additionally, specific language regarding the Suisun Marsh Secondary Management Area has been added to the avoidance and minimization pertaining to protecting water quality and preventing erosion and sedimentation in drainages and wetlands in Section 3.3.2 of the Final EIR/EIS.

**Response to Comment 19-9**

The text in Section 3.2.6 of the Final EIR/EIS has been revised to clarify the wind directions and their connection to pollutant levels and receptor as follows:

“Within the region, the prevailing winds are from the west. During the summer and fall months, **high offshore pressure systems and low pressure in the Central Valley force** marine air to flow eastward through the Carquinez Strait. **However, atmospheric conditions occasionally cause the winds to shift direction and flow from the east.** These easterly winds usually contain more pollutants from the Sacramento and San Joaquin Valleys in the east than the cleaner marine air from the west. During summer and fall months, this condition can result in elevated pollutant levels as pollutants move through the strait into the central Bay Area from surrounding areas.”

**Response to Comment 19-10**

Comment noted. The description for Alternative C is the project that is described in the RTP and the TIP. Since Alternative C, Phase 1 was identified as the preferred alternative, revisions of the RTP or TIP are not needed.

**Response to Comment 19-11**

Comment noted. Interagency consultation (IAC) has been initiated and a determination was made that the project is potentially a POAQC. A qualitative PM<sub>2.5</sub> hot spot assessment was conducted, and resulted in the conclusion that the project would not result in violations of the federal PM<sub>2.5</sub> or PM<sub>10</sub> air quality standards. This determination was confirmed by appropriate agencies during IAC on December 8, 2010. The FHWA concurrence letter was signed on April 13, 2011. The Final EIR/EIS document has been updated to convey this information (Section 3.2.6).

**Response to Comment 19-12**

The language in question is taken directly from FHWA's prototype language found in their 2006 MSAT guidance regarding incomplete or unavailable information for compliance with 40 CFR 1502.22. The language in question has been replaced in Section 3.2.6 of the Final EIR/EIS with updated language from the FHWA's 2009 MSAT guidance. Based on FHWA's 2009 MSAT guidance, the project was identified as being a project with higher potential MSAT effects, and a quantitative analysis of MSAT emissions was conducted. The quantitative analysis indicated that project implementation would lead to decreases in MSAT emissions relative to existing conditions and would result in increases in some MSAT emissions relative to future no project conditions. However, an analysis of the project's MSAT impacts on sensitive receptors is not conducted because, as indicated in the Final EIR/EIS, there are no established criteria for determining when MSAT emissions should be considered a significant issue given the EPA has not established regulatory concentration targets for the six relevant MSAT pollutants appropriate for use in the project development process and the emerging state of the science and of project-level analysis techniques. To the extent that it is applicable or feasible for the project and through coordination with the project development team, Mitigation Measure AQ-2 will help to reduce MSAT emissions and air quality impacts associated with the build alternatives.

**Response to Comment 19-13**

The Department is committed to implement the mitigation measures to reduce MSAT emissions identified in the Draft and Final EIR/EIS in Section 3.2.6.

**Response to Comment 19-14**

The comment refers to the performance of Alternative C Phase 1 relative to the No Build alternative, in both 2015 and 2035. The specific comment referring to Table 3.1.6-6 of the Draft EIR/EIS, which summarizes 2015 AM peak hour conditions, highlights the only two MOEs in that table that are worse under Alternative C, Phase 1 than the No Build case, and the differences are minor. The difference in travel times for WB I-80 to SB I-680 is 15 seconds, or 2.5 percent, and the difference in maximum individual delay is also 15 seconds for that route. All other AM peak hour MOEs improve relative to the No Build Alternative.

The differences presented in Table 3.1.6-9 of the Draft EIR/EIS, however, are more substantial. This table summarizes for the 2035 PM Peak Hour, No Build, Alternative B Phase 1, and

Alternative C Phase 1 cases. While many of the system-wide MOEs presented in this table (and all of the MOEs presented in Table 3.1.6-8 for the AM peak hour) improve over the No Build case, the peak direction travel times are identified as longer than the No Build case for Alternative C Phase 1. This issue was more closely examined after the Draft EIR/EIS was published, and it was found that the longer travel times were the result of the extensive upstream queues in the No Build case not being included in the calculation. This happened because the study area limits were not set far enough upstream to capture the full extent of queuing for the 2035, PM peak hour, peak direction cases, for the No Build, Alternative B Phase 1, and Alternative C Phase 1 cases. When the full queue length is included, the revised travel times are as shown in Table 3.1.6-10 in the Final EIR/EIS. Note that only the information in the shaded area has been revised, as the upstream queuing effect was only an issue for these cases. The revised comparison shows that Alternative C, Phase 1 does in fact deliver improved travel times relative to the No Build case.

The information in Table 3.1.6-10, along with more explanatory text, has been included in a revision to the Traffic Operations Report (TOR) in Section 3.1.6 of the Final EIR/EIS.

The maximum individual delays were also revised based on the corrected analysis, and are now shown to improve over the No Build alternative, as shown in Table 3.1.6-9 in the Final EIR/EIS. This table is also being included in the revised TOR.

Based on the revised information, it is clear that Alternative C Phase 1 provides benefits in all MOE areas, relative to the No Build alternative and can meet project objectives if future phases are delayed or not built.

**Response to Comment 19-15**

See response to comment 19-14. EPA has concurred that Alternative C, Phase 1 is the preliminary LEDPA, see Appendix H.

**Response to Comment 19-16**

See response to comment 19-14.

**Response to Comment 19-17**

The project description is intended to provide an overview to make the project understandable to the public. The lane widening has been determined, but will vary slightly between alternatives. The width of the highway would increase as one approached the interchange and decrease after it had passed. A list of lane additions between points for each alternative would be confusing. The discussion in Section 2.3.1 of the Final EIR/EIS has been revised as indicated below to clarify where the most and least lane widening will occur. (Bold indicates added text.)

“Under both alternatives, I-80 and I-680 would be widened. I-80 would be widened to a minimum of ten lanes (four mixed-flow lanes and one HOV lane in each direction) **near the eastern and western ends of the project** and a maximum of 19 lanes **extending** east of the interchange with I-680 **to approximately the westbound truck scales** (Figures 2-2 and 2-3). I-680 would be widened to a minimum of six lanes (two mixed-flow lanes and one HOV lane in each direction) and a maximum of eight lanes (three mixed-flow lanes and one HOV lane in each direction) **north of the Red Top Road interchange.**”



The study area for all resources includes the most extensive footprint and all areas that may be affected by the project.

**Response to Comment 19-18**

The scope of the I-80/I-680/SR12 Interchange Improvement project is very large and includes transportation improvements across many communities, both environmental justice communities and non-environmental justice communities. As documented in the Draft EIR/EIS the impacts of the build alternatives are also spread across a large area, with some of the most substantial effects, such as business displacement occurring in areas that are not environmental justice communities. In addition, the benefits provided by the project such as reduced congestion, reduced cut-through traffic on local streets, encouraged use of HOV lanes and ridesharing, and improved safety would be equally realized by both environmental justice communities and non-environmental justice communities.

With specific regard to noise impacts on environmental justice communities, the Draft EIR/EIS identified that the build alternatives would result in noise impacts to residents along the north side of State Route 12 East. This area is already protected from noise generated on State Route 12 by existing sound walls (H-1 and H-2 in the EIR/EIS). Four monitored locations on Marquette Way (H01, H06, H09 and H11) would experience noise increases that would approach or exceed NAC under both full build alternatives. This represents 25 residences that would experience future noise levels ranging from 62 to 69 dBA Leq, with the existing sound walls in place. Therefore, abatement was considered. The Draft EIR/EIS evaluated raising the height and extending the sound walls to provide additional noise reduction. Noise barrier H-2 is ten feet high. Raising H-2 to a height of 16 feet was found not to benefit any receivers in that it did not reduce noise by 5dB, and therefore, raising the barrier was not feasible. Noise barrier H-1 is 8 feet high. Analysis was conducted to determine if raising the height of the existing wall up to 14 or 16 feet would result in an additional 5 dB of noise reduction. Since 5 dB of noise reduction could be achieved by raising the height of the barrier to 14 feet or 16 feet, the barrier was determined to be feasible. However, the cost was found to exceed the Caltrans cost reasonableness allowance for this area. The reasonableness allowance per residence was calculated using the procedure defined in the 2006 Caltrans Protocol.

The Department has determined that the barriers studied in this analysis are not considered reasonable from a cost perspective. The public input process has been completed and the final determination is that none of the barriers evaluated will be included in the project (see Section 3.2.7 of the Final EIR/EIS).

**Response to Comment 19-19**

The cost of the project is not a factor in determining reasonableness of noise abatement. As stated in the 2006 protocol, the determination of the reasonableness of noise abatement is more subjective than the determination of its feasibility. For a noise barrier to be reasonable from a cost perspective, the estimated cost of the noise barrier should be equal to or less than the total cost allowance calculated for the barrier. The base allowance of \$31,000 is based on the published Department Construction Price Index and is adjusted annually. The total allowance per residence is determined by adding several adjustments to the base allowance based on several factors identified in the Protocol. Other factors that affect reasonableness include the following: absolute noise levels, existing versus design-year noise levels, achievable noise reduction, date

of development along the highway, life cycle of noise abatement measures, and environmental impacts of abatement construction. Additional factors to consider include opinions of affected residents; input from the public and public agencies; and social, economic, legal, and technological factors.

**Response to Comment 19-20**

The Department proposed that identification and evaluation of archaeological properties within the APE, and any resolution of adverse effects on those properties, be provided for in a programmatic agreement specific to the undertaking. As an attachment to the PA, SHPO further states that a Historic Property Treatment Plan (HPTP) will be developed which will address detailed protocol for identification, evaluation, and treatment of historic properties. The need for monitoring and treatment of unknown properties will also be addressed in the HPTP. SHPO concurred with this course of action (in addition to eligibility of several built resources and two historic districts) on March 20, 2010. The PA was approved by SHPO and Department HQ on November 7, 2011 and by the Department District 04 Director on November 8, 2011.

**Response to Comment 19-21**

The City of Fairfield has provided a letter, dated November 22, 2010, indicating the proposed project will have a minimal impact upon the Fairfield Linear Park. Please see Appendix B of the Final EIR/EIS.

**Response to Comment 19-22**

According to the Solano County General Plan, Figure AG-1, all farmlands affected by the project are either classified as Prime Farmlands or grazing lands. Grazing lands within the project area are not classified as Farmlands of Statewide Importance or Unique Farmlands. Therefore no farmlands of Statewide Importance or Unique Farmlands would be adversely affected by the project.

**Response to Comment 19-23**

Climate change is briefly discussed and in Section 3.2.6 Air Quality. This section refers the reader to Chapter 4 (CEQA) for a more in depth analysis of climate change impact analysis. Because there have been more requirements set forth in California legislation and executive orders regarding climate change, the issue is addressed in the California Environmental Quality Act (CEQA) chapter of this environmental document and may be used to inform the National Environmental Policy Act (NEPA) decision.



Letter 20

## Fairfield-Suisun Unified School District

2490 Hilborn Road • Fairfield, California 94534 • Telephone (707) 399-5148  
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October 26, 2010

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California Department of Transportation, Dist. 04  
P.O. Box 23660, MS-8B  
Oakland, California 94623-0600

SUBJECT: Interstate 80/Interstate 680/State Route 12 Interchange Project  
(#04-0000-0150)

Dear Mr. Chan:

We appreciate the opportunity to provide Fairfield-Suisun Unified School District's ("District") comments on the Draft Environmental Impact Report/Environmental Impact Statement ("EIR/EIS") for the Interstate 80/Interstate 680/State Route 12 Interchange Project ("Project"). Our review of the Draft Project EIR/EIS reveals the need for further analyses and mitigation in the impact areas of:

- (1) traffic,
- (2) student pedestrian safety,
- (3) emergency access,
- (4) air quality,
- (5) noise,
- (6) land use, and
- (7) Section 4(f) concerning the Angelo Rodriguez High School ("Rodriguez HS") that is within the Western Section of the Project on Red Top Road between I-80 and I-680.

20-1

Although the District commends the prospect of improved highway capacity and flow, the potential impacts upon Rodriguez HS from Alternative B; Alternative C; and Alternative C, Phase 1 have not been adequately analyzed or mitigated. As a result, the District requests further analysis and accompanying mitigation as set forth more fully below. Additionally, the proposed taking of Green Valley Middle School site under Alternative B and Alternative B, Phase 1 will impair the District's ability to sell, lease, or exchange the site as a means to obtain a new elementary/middle school site.

20-2

As you know, the District is entrusted with providing its students with a high quality education, which includes insuring that its students are safe and are not significantly or cumulatively impacted by development whether private or public. The Draft EIR/EIS acknowledges that the District instructs children at two public schools within or near the Project area: (1) Rodriguez HS and (2) Nelda Mundy Elementary School. It also acknowledges the presence of the former Green Valley Middle School within the Project area. Alternative B's proximity to and Alternatives C and C, Phase 1's taking of a portion of Rodriguez HS raise the concern that construction and operation of the Project will adversely affect the students' safety, health, and learning environment more than as disclosed in the Draft EIR/EIS. The full range of potential impacts to Rodriguez HS should be adequately evaluated and mitigated to protect our students, parents, faculty, and staff.

20-3

*"Our Mission is to Provide a Quality Educational System that Assures Opportunities  
for Every Student to Learn and Meet the Challenges of the Future"*

Interstate 80/Interstate 680/State Route 12 Interchange Project  
(#04-0000-0150) page 2

This letter is technical in nature due to the subject matter. The District wishes to emphasize that its comments are meant to ensure that the California Department of Transportation ("Caltrans") and the Federal Transit Administration ("FTA") fully evaluate and mitigate the potential impacts to Rodriguez HS and the former Green Valley Middle School site. The intent of these comments are to raise those particular issues concerning the District's schools to ensure the well being of our students and maintaining the best possible environment for educating our children.

20-3  
cont.

**1. TRAFFIC.**

**A. Operational Traffic.**

The Draft EIR/EIS provides a thorough analysis of traffic impacts on the freeways and interchange ramps, but there is no traffic impact analysis for surface street segments or intersections. Rodriguez HS fronts Red Top Road near the I-680 and Lopes Road. Alternative B; Alternative C; and Alternative C, Phase 1 will all create a new interchange at I-680 and Red Top Road/Lopes Road and improve the interchange at I-80 and Red Top Road to the west of Rodriguez HS. These improvements will entice traffic traveling north on I-680 to I-80 to potentially use Red Top Road as a shortcut means of bypassing the I-80/I-680 Interchange. Currently, motorists are discouraged from using Red Top Road as a bypass because there is not an interchange at I-680 and Red Top Road. Instead, such motorists have to travel along Lopes Road to the Gold Hill/I-680 interchange. This new Red Top Road "bypass" would also entice those traveling north on I-80 to south on I-680 when congestion occurs at the I-80/I-680 interchange.

20-4

The main entrance to Rodriguez HS is at the Red Top Road/Oakbrook Drive intersection. Increased traffic due to the Project could significantly or adversely impact this intersection and children, parents and staff commuting to or from the school. The typical commuting or drop-off and pick-up periods are from 7:30 a.m. to 9:00 a.m. and 3:00 p.m. to 4:00 p.m. The significant increase in vehicular traffic on Red Top Road will potentially create significant/adverse impacts to student safety and travel time to and from the school. The potential traffic and safety impacts to the Red Top Road/Oakbrook Drive intersection and the intersections of Red Top Road/River Drive and Red Top Road/Lopes Road require analysis and mitigation should such analysis confirm potential significant/adverse traffic impacts. Further, the road segments of Red Top Road between I-80 and I-680 must be analyzed for significant/adverse impacts due to Project-induced traffic and mitigation included for such significant/adverse impacts.

Alternative C and Alternative C, Phase 1 both include a new connector between the proposed realignment of Lopes Road and Fermi Road. Fermi Road fronts the north side of Rodriguez HS. There are three school parking lots that are accessed along Fermi Road. The Draft EIR/EIS does not appear to analyze the existing conditions, construction phase, or operation phase traffic along Fermi Road for Alternative C or Alternative C, Phase 1. As this new connector will undoubtedly increase traffic along Fermi Road in front of Rodriguez HS, the impacts to the intersections between Fermi Road and the school's parking lots, the Watt Drive/Fermi Road intersection, and the road segments along Fermi Road, each require analysis for potential significant/adverse impacts. If such impacts are found, feasible mitigation is required.

20-5

**B. Construction Traffic.**

The Draft EIR/EIS discloses that construction of Alternative C, Phase 1 would take four years to complete, from 2012 to 2016. (p. 2-2.) However, it does not disclose the duration of construction near Red Top Road along the I-680 and for the new connector to Fermi Road. The numerous construction trucks that would be needed will undoubtedly cause traffic congestion, which would adversely/significantly impact children, parents, and staff commuting to and from Rodriguez HS. Similar to the traffic analysis for operations, the construction traffic analysis is also confined to highway and ramp conditions. Surface streets such as Red Top Road and Fermi Road were not analyzed. Thus, potential traffic impacts to Rodriguez HS and along Red

20-6

|  |               |
|--|---------------|
| <p>Interstate 80/Interstate 680/State Route 12 Interchange Project<br/> (#04-0000-0150) page 3</p>   |               |
| <p>Top Road and Fermi Road from the Project's construction that includes accounting for construction trucks needs to be conducted and mitigation applied to significant/adverse impacts. The Draft EIR/EIS does not disclose the potential construction truck routes or truck queue locations. The use of Red Top Road or Fermi Road for construction truck use or queuing would potentially cause significant/adverse traffic impacts to Rodriguez HS. As such, construction truck use and queuing on these roads should be prohibited and directed elsewhere.</p>  | 20-6<br>cont. |
| <p>The District understands that a Traffic Management Plan ("TMP") will be developed later and implemented to address construction traffic impacts. (pp. 3.1.6-38 and 3.1.6-39.) However, if the potential adverse/significant construction traffic impacts to Rodriguez HS are not now identified, the TMP will not likely be developed to address such undisclosed impacts. To avoid this situation, the District requests that the analysis of construction traffic be revised and the District be allowed to review and comment on the development of the TMP to ensure such impacts are appropriately mitigated. Also, it is unclear why development of the TMP is not done as part of the EIR/EIS, but deferred to long after the Project is approved.</p>   | 20-7<br>20-8  |
| <p><b>2. STUDENT PEDESTRIAN SAFETY.</b></p>  |               |
| <p>Many students walk to Rodriguez HS and must cross Red Top Road to get there. The increased traffic on Red Top Road as a result of the Project could significantly/adversely impact student pedestrian safety. The suitability of school sites has been characterized by the California Department of Education ("CDE"), which has developed standardized requirements to ensure that school districts utilize only suitable school sites. One of these suitability standards focuses on student pedestrian safety that is specifically based upon Caltrans' own manual as referenced below:</p>   |               |
| <p>"The [school] site shall not be on <i>major arterial streets with a heavy traffic pattern</i> as determined by site-related traffic studies including those that require student crossings unless mitigation of traffic hazards and a plan for the safe arrival and departure of students appropriate to the grade level has been provided by city, county or other public agency in accordance with the 'School Area Pedestrian Safety' manual published by the California Department of Transportation, 1987 edition, incorporated into this section by reference, in toto." (5 Cal. Code of Regs., § 14010(l), <i>emph. added.</i>)</p>  | 20-9          |
| <p>If the Project would turn Red Top Road or Fermi Road into a "major arterial street with a heavy traffic pattern," the District's ability to redevelop Rodriguez HS in the future would be significantly/adversely impaired. Further, section 14010(n) requires a school site to "encourage student walking and avoid extensive bussing..." The Project should not be developed in such a way as to discourage student walking. Indeed, Project Objective number 4 of the Draft EIR/EIS is to "improve safety conditions." (p. 1-2.) As currently proposed and analyzed the Project does not meet this objective. Accordingly, the Project's potential impacts to student pedestrians under these CDE standards need to be conducted by Caltrans and FTA and mitigated to less than significant.</p>   |               |
| <p><b>3. EMERGENCY ACCESS.</b></p>   |               |
| <p>The Draft EIR/EIS divulges there will be short-term impacts on police, fire, and emergency services during construction of the alternatives. (p. 3.1.5-4.) The specific impact would be increased emergency response times caused by congestion and lane closures during construction. (<i>Ibid.</i>) As mitigation for this significant/adverse impact, the Draft EIR/EIS notes that the TMP would be provided to all emergency service providers. The analysis stops here. The District is not convinced that providing the TMP document to emergency service providers is sufficient mitigation to reduce the potential impact to less than significant. Caltrans and FTA provide no basis to conclude that the mitigated impact would be less than significant. As noted above, the construction of Alternative C, Phase 1 alone will take four years to complete. That means that emergency services to Rodriguez HS will be impaired for four years, which when considering children is</p> | 20-10         |



Interstate 80/Interstate 680/State Route 12 Interchange Project  
(#04-0000-0150) page 4

not a short-term impact. With the increased hazards from additional construction traffic, emergency services are even more critical for our children attending Rodriguez HS. Further analysis must be conducted and additional mitigation applied to ensure that emergency services to Rodriguez HS are not impaired. At a minimum, emergency service providers and the administrators of Rodriguez HS need to review and comment upon the TMP before it is approved. Further, coordination between Caltrans, the emergency providers, and Rodriguez HS must be on going throughout the construction process.

20-10  
cont.

4. AIR QUALITY.

A. Operational Air Quality.

Figure 3.2.6-1 correctly identifies Rodriguez HS as a sensitive receptor for air quality. As with the traffic analysis in the Draft EIR/EIS, the air quality section analyzes the potential impacts from the highway segments and ramps, but does not analyze surface street impacts. In Table 3.2.6-3, the Draft EIR/EIS provides an analysis of Carbon Monoxide ("CO") impacts at the Project's interchanges and ramps. It does not provide a CO impact analysis of the intersections along Red Top Road, Fermi Road, or Lopes Road bordering Rodriguez HS. To determine whether the operational Project would significantly/adversely impact Rodriguez HS, the CO impact at the intersections of Red Top Road/Oakbrook Drive, Red Top Road/River Drive, and Red Top Road/Lopes Road needs to be analyzed and impacts mitigated to less than significant.

20-11

For the same reasoning, the analysis of CO impacts along road segments as presented in Table 3.2.6-4 need to be expanded to cover those segments on Red Top Road, Fermi Road, and Lopes Road that border Rodriguez HS.

In the Draft EIR/EIS, the Criteria Pollutants and Mobile Source Air Toxics ("MSAT") are only analyzed for the highway segments, interchanges, and ramps for the operational Project. (See Tables 3.2.6-7 and 3.2.6-8.) In all Project build alternatives, dust in the form of PM10 and PM2.5 will be significantly/adversely greater than existing conditions, and nearly all toxic air pollutants from the Project's build alternatives will be significantly/adversely greater than without the Project. The analysis stops here; it does not analyze the specific impacts from toxic air pollutants on surface streets surrounding Rodriguez HS. For the same reasons as above, the air quality analyses need to be expanded to analyze and mitigate potential operational Project toxic air quality impacts to Rodriguez HS from the Project's Criteria Pollutants and MSAT to less than significant.

20-12

Included in the State Legislature's and CDE's school site suitability standards is the site's air quality for use as a school. So as not to impair the District's ability to redevelop the Rodriguez HS, Caltrans and FTA must analyze the Project's potential significant/adverse impact as a hazardous air emitter along with other hazardous air emitters within ¼ of a mile of Rodriguez HS per California Education Code section 17213 and section 15186 of Title 5 of the California Code of Regulations. Specifically, a health risk assessment from the Project's short-term (i.e., construction) and cumulative (i.e., long-term) air quality impacts on the students' and staff's health needs to be conducted by Caltrans and FTA. Further, if the added traffic to Red Top Road or Fermi Road causes either to become a "busy traffic corridor," the air quality health risk assessment then also needs to account for such surface street traffic as an additional hazardous air emitter.

20-13

For toxic air pollutants, described as MSAT and Criteria Pollutant emissions, the Draft EIR/EIS states that Caltrans will consider five mitigation measures. (p. 3.2.6-23.) *Consideration* is not a *commitment*. Caltrans must commit to employing such mitigation measures to reduce the air quality impacts to less than significant.

20-14

Interstate 80/Interstate 680/State Route 12 Interchange Project  
 (#04-0000-0150) page 5

**B. Construction Air Quality.**

The Draft EIR/EIS analyzes the pollutant load from construction of the Project as a whole. (pp. 3.2.6-20 – 3.2.6.23.) Missing from the analysis is the specific potential air quality impacts to Rodriguez HS. Since only the construction as a whole was evaluated, the District does not know what the potential impacts are to the high school. A specific analysis of potential air quality impacts to Rodriguez HS needs to be done and mitigation applied to reduce impacts to less than significant. The Draft EIR/EIS reports 12 different general dust mitigation measures. One is a dust control plan that will purportedly be developed some time in the future to minimize construction impacts on existing communities. (p. 3.2.6-24.) The District requests that the dust control plan also be developed to mitigate dust impacts on Rodriguez HS and that the District be

20-15

20-16

allowed to review and comment on a draft of the dust control plan before it is finalized. Further, the District requests that the sound wall between Rodriguez HS and Lopes Road, as requested below, be installed at the beginning of the construction process to provide a physical barrier to the dust emanating from the Project's construction.

20-17

Also missing from the Draft EIR/EIS is any analysis of potential air quality impacts from construction traffic along Red Top Road and Fermi Road in the vicinity of Rodriguez HS. Since construction trucks mainly use diesel for fuel, their emissions create a hazardous air emitter that could significantly/adversely impact the children in class or participating in outdoor activities should such trucks be allowed on Red Top Road or Fermi Road. To avoid significant/adverse air quality impacts, truck routes and queue locations need to be directed away from these roads.

20-18

**5. NOISE.**

Among other thresholds, the Draft EIR/EIS provides exterior and interior noise thresholds for schools, playgrounds and active sport areas of 67 dBA for exterior and 52 dBA for interiors. (Table 3.2.7-1.) The Draft EIR/EIS identifies the locations of short-term noise monitoring locations. (Table 3.2-7-3.) However, no noise monitoring was conducted at or near Rodriguez HS. Rather, the closest noise monitoring location is ST-4, which is more than 1,600 feet away from the nearest edge of Rodriguez HS. ST-4 is also behind an existing noise barrier, which would attenuate the Project's noise. (See Figure 3.2.7-4.)

20-19

Although a noise prediction location, C15, at Rodriguez HS is identified on Figure 3.2.7-4, the existing noise and predicted noise from the Project at C15 is not provided in the Draft EIR/EIS. See Table 3.2.7-4 in which C15 is not included. The noise levels for C04 (aka ST-4), which is behind an existing noise barrier, are predicted to be up to 63 dBA for all alternatives. (*Ibid.*) However, there is no existing or proposed sound wall or noise barrier between Rodriguez HS and the I-680 or other parts of the Project. The District cannot discern what the Project's noise levels would be at C15 for exterior noise or in classrooms for interior noise.

20-20

It is likely that the Project's noise impact to Rodriguez HS would be significant or adverse. The Draft EIR/EIS divulges, "[N]oise levels in the project area would approach or exceed the NAC thresholds, [and thus] noise abatement must be considered." (p. 3.2.7-7.) Again, *consideration* is not a *commitment*. In addition, in Appendix B – and conspicuously not in the Noise section of the Draft EIR/EIS – it discloses that using a prediction site for existing conditions, the traffic noise modeling predicts existing noise at 53 dBA and 57 dBA with the Project. These results are incongruent with the results for C04/ST-04, which, as stated above, is behind a noise barrier, would experience 67 dBAs. The Draft EIR/EIS results should be double-checked and specific noise monitoring conducted to ensure that the predicted data is not underestimated.

20-21

Also missing from the Draft EIR/EIS is any noise analysis as a result of increased traffic on Red Top Road or Fermi Road. The Project's addition of potential construction and operational traffic on these roads need to be analyzed and mitigated to less than significant.

20-22

Interstate 80/Interstate 680/State Route 12 Interchange Project  
(#04-0000-0150) page 6

The Draft EIR/EIS identifies five potential noise mitigation measures, but claims that noise barriers are the only feasible noise abatement mitigation for this Project. (p. 3.2.7-13.) In fact, two of the listed five noise mitigation measures are feasible here: (1) using design alternatives to alter the horizontal alignment of a project and (2) acquiring property to serve as a buffer zone. Others may also exist. Rather than encroaching upon the high school property to realign Lopes Road, this road can be located further east or at least kept in its current location to avoid the Project becoming closer to Rodriguez HS. There is plenty of available land for the roadway to be aligned closer to I-680 and nothing in the Draft EIR/EIS suggests that such an alignment is unfeasible. Implementing these two noise mitigation measures would reduce the Project's potential noise impacts on Rodriguez HS to less than significant.

20-23

CDE has also developed school site standards in terms of noise pollution. In section 14010(e) of Title 5 of the California Code of Regulations, sound levels cannot cause a safety problem or adversely affect the educational program. Certain portions of the education program at Rodriguez HS are conducted outdoors. As a result, the potential adverse noise impact to Rodriguez HS' educational plan needs to be analyzed and mitigated to less than significant.

20-24

In addition, a construction noise impact analysis on Rodriguez HS should be conducted as it is missing from the Draft EIR/EIS. To reduce the potential noise impacts from construction and operational noise, a noise barrier or sound wall should be constructed along the frontage of Lopes Road that borders Rodriguez HS as noise mitigation. As mentioned above, this sound wall should be constructed in the beginning of construction to provide noise mitigation for the remainder of construction.

20-25

20-26

## 6. LAND USE.

The Draft EIR/EIS claims that the Project is in conformity with land use goals, policies, objectives and the impact is less than significant. (See Table 4.1.) Land Use Goal LU.G-4 of the Solano County General Plan is to "[e]ncourage land use development patterns and circulation and transportation systems that promote health and wellness and minimize adverse effects on agriculture and natural resources, energy consumption, and air quality." (p. 3.1.1-14.) As discussed above, the Project's proposal to realign Lopes Road on Rodriguez HS property closer to the school's students is not in conformity with this goal to minimize adverse air quality effects. To be in conformity, Lopes Road needs to be located closer to I-680 and away from Rodriguez HS.

20-27

Objective CI-1 of the City of Fairfield General Plan is to "[e]stablish a circulation system that is consistent with the land use patterns of the city." (p. 3.1.1-17.) The Project's taking of school property is not consistent with the site's school use. These inconsistencies cause a significant impact upon Rodriguez HS. Thus, if Caltrans and FTA are going to advocate for the current proposed alignment of Lopes Road, the impact needs to be described as significant/adverse. However, feasible mitigation exists by relocating Lopes Road to the east away from Rodriguez HS. The Draft EIR/EIS should be revised accordingly.

20-28

## 7. SECTION 4(f).

Section 4(f) of the Department of Transportation Act of 1966 requires a special review for federally-funded transportation projects, such as this Project, that affect recreation areas, parks and historic sites. Although recognized as recreational facility for both students and the public during non-school hours, Rodriguez HS is not treated as a 4(f) resource in the Draft EIR/EIS because it claims to take a portion of the property outside the softball field fence line for Alternatives C and C, Phase 1. (p. 3.1.1-20 and Appendix B.) On this basis, it is claimed that this portion of land does not function as a recreational facility and is therefore not a Section 4(f) resource. (*Ibid.*) The District disagrees with this analysis and characterization for the following reasons, without limitation:

20-29

Interstate 80/Interstate 680/State Route 12 Interchange Project  
 (#04-0000-0150) page 7

(1) The precise amount of land to be taken from Rodriguez HS is not sufficiently delineated for the realignment of Lopes Road or the right-of-way to be included. Looking at Figure 3.2.7-12 in Volume 2 of the Draft EIR, the Project's boundary appears to take part of the softball field rather just outside the fence line;

(2) The High School land between the fence and Lopes Road functions as a safety buffer to those students and public members using the softball field. Considering that the Rodriguez HS property abuts Lopes Road, the right-of-way to be taken is substantial and completely erodes the safety barrier; and

(3) The encroachment of the Project on Rodriguez HS would impair the District's ability to redevelop the site in the future, as CDE's siting requirements would limit placement of school buildings and facilities.

20-29  
 cont.

Thus, this portion of the Rodriguez HS site serves as part of the recreational resource at the site. The Draft EIR/EIS is incorrect when it states that it is not. Accordingly, Caltrans and FTA need to conduct a complete Section 4(f) analysis on the proposed taking from the Rodriguez HS field.

#### 8. TAKING OF FORMER GREEN VALLEY MIDDLE SCHOOL.

The Draft EIR/EIS discloses that under Alternative B and Alternative B, Phase 1, the former Green Valley Middle School will be displaced. (See Map entry #1 on Tables 3.1.4-1 and 3.1.4-2.) The criteria for a full taking are defined as:

"Where the proposed right-of-way overlapped a parcel, that parcel was considered affected by the proposed project. For parcels that did not fall completely within the right-of-way lines, those where less than 50% of the total parcel area was overlapped by the proposed right-of-way were considered partial acquisitions unless the affected portion of the parcel contained the primary structure (business or residence) on the property. Where more than 50% of the parcel would be overlapped, the parcel was considered to be fully acquired by the project alternative." (p. 3.1.4-5.)

However, it is unclear in the Draft EIR/EIS whether Caltrans and FTA are proposing a full or partial take of the former Green Valley Middle School site. If a partial take is contemplated, the extent of the taking is not defined. This has the unfortunate effect of impacting the District's current negotiations on a land swap for a new elementary/middle school site. With the scarcity of State funds and dwindling developer fees, the District finds it nearly impossible to purchase the necessary elementary/middle school site. The reality is that a land swap will provide the District with greater value than having to purchase a site from State funds or just compensation provided by Caltrans or FTA. In our experience, many times property owners are motivated by factors other than purchase price to swap properties. Further, the potential protracted delay in Caltrans or FTA taking the former Green Valley Middle School site will make it likely impossible for the District to make any progress on a new elementary/middle school site and will further impair the District's ability to provide adequate school facilities for its students. The Project should be designed to avoid taking the former Green Valley Middle School site. Again, if the District cannot swap this land for an appropriate school site in the near future as currently contemplated, the District's future plans will be in jeopardy.

20-30

#### 9. CONCLUSION.

As discussed above, the CDE has promulgated specific regulations in Title 5 of the California Code of Regulations that impose rigid requirements on sites to be suitable for schools in terms of students' safety, health and well-being. The Project could cause the Rodriguez HS site to become ill-suited for continued use

20-31

Interstate 80/Interstate 680/State Route 12 Interchange Project  
(#04-0000-0150) page 8

as a school site and as a recreational resource. The softball fields are also extensively used by public individuals and nonprofit organizations during non-school hours. Their recreational activities would also be significantly/adversely impacted by this Project's encroachment upon Rodriguez HS, and the Project's addition of fast-moving traffic along Lopes Road next to these fields. For these reasons and those described above, the District requests that analyses and mitigation identified above be conducted and presented in a revised Draft EIR/EIS for public review.

We further request that this letter be included in the Project's record of proceedings. Again, thank you for allowing the District to submit its comments on this Project. I am sure that all of us desire to protect our students from undue impacts from future development and your interest in our comments is evidence of that desire. If you have any questions or wish to consult with the District further on the matters discussed herein or on any other aspect of the Project, please do not hesitate to contact me at your earliest convenience by correspondence or by telephone at (707) 399-5148.

Sincerely,



Kim VanGundy

cc: Jacki Cottingim-Dias, Ph.D., District Superintendent  
Kelly Morgan, Assistant Superintendent, Business Services  
Kris Corey, Assistant Superintendent, Educational Services  
Amy Gillespi-Oss, Rodriguez High School Principal  
Philip J. Henderson, Esq., Orbach, Huff & Suarez LLP  
Stan M. Barankiewicz II, Esq., Orbach, Huff & Suarez LLP  
Janet Adams, Deputy Executive Director, Solano Transportation Authority

20-31  
cont.



**Comment Letter 20, Kim VanGundy, Fairfield-Suisun Unified School District, 10/26/10**

**Response to Comment 20-1**

The Department acknowledges FSUSD's concerns and has reexamined these impacts areas. The Final EIR/EIS and the responses to comments below address FSUSD's areas of concern.

**Response to Comment 20-2**

Alternative C has been chosen as the preferred alternative. As part of Alternative C, a PG&E valve lot (a gas transmission facility) would be relocated to a vacant parcel owned by the FSUSD at the former Green Valley Middle School location at 3630 Ritchie Road in Fairfield. The relocated valve lot would occupy a 1.3-acres portion of the larger 7.69-acre FSUSD parcel. This relocation would require the acquisition of 1.3 acres from FSUSD. The 7.69-acre parcel would be divided into two separate parcels: 1) one 1.3-acre parcel for the relocated PG&E valve lot which would be acquired by STA, and 2) the remainder of the parcel (6.39 acres) for future development of which is not part of this project. The project description (in Section 2.3.5 of the Final EIR/EIS) and associated impact areas have been revised to describe this change.

**Response to Comment 20-3**

Alternative C would realign Lopes Road approximately 100 feet west of its current location between Fermi Drive and Red Top Road. Although realigning Lopes Road would move the road closer to Rodriguez High School, it would not impact any portion of the school including its recreational fields. Since the publication of the draft EIR/EIS, the Lopes Road realignment has been modified to fully avoid any impact on the school including landscaped areas beyond the outfield fence of the school's softball field. This change in the project design would avoid any direct or indirect effect on the school. Figures 2-3 and 2-5 of the project description depict these changes; associated impact areas have been revised to describe this change as well. Responses below address the District's detailed comments regarding potential impacts to student's safety, health and learning environment.

**Response to Comment 20-4**

Please refer to the response to comment 12-2 for a detailed description of the traffic effects of the proposed project on Red Top Road in the vicinity of Rodriguez High School. Though Alternative C has been selected, both build alternatives and their fundable first phases would actually not result in any significant increase in traffic levels. In many cases, the project would improve (or reduce) traffic levels on Red Top Road in the vicinity of the High School because traffic congestion on I-680 and I-80 and through the I-680/I-80 interchange would be reduced and there would be less incentive for motorists to exit from the freeway system to avoid congestion and delay. Additionally, signage will be provided to direct traffic exiting NB I-680 to access WB I-80 to use Lopes Road north to the I-80/Green Valley Road interchange.

The commenter expresses concern that construction of Alternative C-1 would result in increased traffic along Red Top Road in front of Rodriguez HS that could significantly or adversely affect intersection operations and affect student safety and travel times.

Based on the 2035 traffic forecasts, without the project (No-Build Alternative), Red Top Road east of I-80 would have approximately 2,095 vehicles in the AM peak hour and 2,445 vehicles in the PM peak hour. With Alternative C, Phase 1, traffic projections forecast 1,605 vehicles for the same location in the AM peak hour and 2,460 vehicles in the PM peak hour. This represents a 23 percent reduction in the number of AM peak hour trips and less than a 1 percent increase in the number of PM peak hour trips as a result of constructing Alternative C, Phase 1. Thus, traffic operations adjacent to the school are expected to remain the same or improve with the project.

Generally with increased traffic there is a corresponding increase in congestion related (rear-end type) accidents. A decrease in congestion generally results in fewer congestion-related accidents. Thus, Red Top Road is expected to be a safer facility with the construction of Alternative C, Phase 1 than with the No-Build Alternative (without the project).

#### Response to Comment 20-5

The local roadway shown in Figures 2-2 through 2-5 is a realignment of Fermi Road; Fermi Road must be realigned due to the realignment of Lopes Road and the new interchange. Fermi Road will be relocated solely to connect to the realigned Lopes Road. Alternative C, Phase 1 is not anticipated to result in additional traffic on Fermi Road compared to the No-Build Alternative. Drivers using Fermi Road after the implementation of Alternative C, Phase 1 would be the same drivers who currently use the road. Thus, the new configuration of Fermi Road is not expected to affect regional travel routes, and the traffic volumes are thus expected to be similar for all build alternatives. Construction impacts are addressed in response 20-6 below.

#### Response to Comment 20-6

Construction truck traffic on local roads will be analyzed as part of the development of Transportation Management Plans (TMPs) for each construction phase. Detailed TMPs cannot be prepared prior to the definition of each project phase, as local conditions and the presence of prior phases affect items such as truck routes, locations of staging areas, employee parking areas, detour routes, etc. For the project phases affecting the Red Top Road/Fermi Drive area, the school's special needs will be considered, including:

- Limiting or prohibiting truck traffic on Red Top Road along the school frontage during school operating hours;
- Minimizing instances where traffic detours include Red Top Road along the school frontage;
- Avoiding construction activities that affect access to school parking lots off Fermi Drive.

Please also refer to response to comment 20-7.

#### Response to Comment 20-7

Transportation Management Plans (TMPs) are specific to individual project construction packages, and are very detailed in describing the detour routes, their signage and hours of operation, construction staging areas, employee parking areas, noise and air quality management, and other practices to be followed. Such details have not been developed at this time, but will be developed during the final design phase when specific project construction packages are identified, the work schedules are defined, and prevailing traffic, pedestrian, bicycle and transit conditions near the time of construction are studied and incorporated.

The Department and STA will ensure that FSUSD and Rodriguez High School staff are included in the development and review of the TMPs for any construction packages for this I-80/I-680/SR 12 Interchange Improvement project that include work on Red Top Road and in the vicinity of District facilities.

**Response to Comment 20-8**

The environmental consequences of construction-period truck traffic was included in the EIS/EIR and not deferred until after project approval. The EIS/EIR concludes that either project alternative would entail additional truck and construction worker traffic, temporary lane closures and detours, and various construction-related activities that would increase congestion to varying degrees throughout the construction period. In addition, minimization measures were included in the EIS/EIR and not deferred until after project approval. The EIS/EIR includes the requirement to prepare and implement a TMP. As noted in response to comment 20-7 development of a detailed TMP is specific to individual project construction packages with input from the construction contractor. However, the minimization measure includes specific requirements and measures to be included in the TMP (see Section 3.1.6) to ensure the TMP is effective in reducing construction-period effects.

**Response to Comment 20-9**

No increase in traffic on Red Top Road due to the project is projected when compared to the No Build; consequently, there is no need to reclassify the roadway as a major arterial. While Red Top Road is a two-lane roadway just south of the I-80 eastbound ramps intersection, it widens out to a four-lane landscaped roadway with turn pockets and a traffic signals at Watt Drive, the Rodriguez High School entrance, and Lopes Road. This lane configuration and traffic control is appropriate for the traffic levels associated with a 2,200-student high school and adjacent residential and industrial uses. Further, the Lopes Road realignment between Red Top Road and Fermi Drive will also include sidewalks. The project will not result in changes that would decrease or discourage walking as a mode of transportation to and from the high school.

**Response to Comment 20-10**

The Transportation Management Plan will not just be provided to emergency service providers. The TMP will be developed with direct input from emergency service providers including the police, fire department, and ambulance services affected by the project. Emergency service providers will be given adequate advance notice of any street closure or detour. Advance notice allows the emergency service provider to adjust response routes to minimize potential delays. As noted in response to comment 20-7 development of a detailed TMP is specific to individual project construction packages with input from the construction contractor. However, the minimization measure includes specific requirements and measures to be included in the TMP (see Section 3.1.6) to ensure the TMP is effective in reducing construction-period effects. As requested by the District, the District will be provided the TMP in advance to allow input and coordination of construction activities with High School operations to minimize construction-period effects.

**Response to Comment 20-11**

Project-level air quality analyses are performed on intersections with the worst-case traffic conditions. If the analysis concludes that no ambient air quality standards will be exceeded, then intersections with less severe traffic conditions would also not exceed ambient air quality

standards. As indicated in Section 3.2.6 of the Draft EIR/EIS, the roadway intersections and segments with the highest traffic volumes and worst levels of congestion/delay) were analyzed in the CO analyses. The analysis concluded that no violation of the NAAQS or CAAQS would occur at these intersections or segments as a result of project implementation. Thus, no violations are anticipated at other roadway intersections and segments with less traffic volumes and congestion/delay in the study area.

**Response to Comment 20-12**

The MSAT evaluation was prepared in accordance with FHWA MSAT guidance. As indicated in the analysis, accepted methods to evaluate localized MSAT effects are currently not available. Mitigation measures to reduce MSAT emissions are identified in the Draft (and Final) EIR/EIS in Section 3.2.6.

**Response to Comment 20-13**

MSAT language has been updated to reflect the FHWA's 2009 MSAT guidance, which supersedes the FHWA's 2006 MSAT guidance used in the Draft EIR/EIS. The FHWA's MSAT guidance regarding incomplete or unavailable information for compliance with 40 CFR 1502.22 indicates that "In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives." Consequently, the HRA analysis conducted for the Draft EIR/EIS is sufficient to characterize potential health risks associated with implementation of the project.

**Response to Comment 20-14**

The Department will evaluate all mitigation measures identified in the Draft EIR/EIS and implement those to be found feasible.

**Response to Comment 20-15**

Please refer to response to Comment 20-13.

The Draft EIR/EIS evaluated emissions associated with construction and operation of the project, as well as an evaluation of CO and MSAT effects. It was found that construction-related air quality impacts would be less than significant.

**Response to Comment 20-16**

Per the Department's Standard Specification Section 14-9.01, a dust control plan will be prepared prior to construction (Section 3.2.6 of the Draft and Final EIR/EIS). The dust control plan will be provided to FSUSD for review and input. Standard Specification Section 14-9.01 specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. Measures specified in the Draft EIR/EIS will ensure that construction dust impacts are minimized and therefore a temporary soundwall to reduce dust is not warranted. The mitigation measures require daily sweeps of construction sites and paved roads, hydroseeding or watering of all active construction areas, and limiting traffic speeds to minimize airborne dust all of which will greatly reduce dust emissions during construction and potential dust impacts on all surrounding land uses.

**Response to Comment 20-17**

Please refer to response to comment 20-16. Measures already included in the Draft EIR/EIS are sufficient to reduce potential dust impacts thereby not requiring the need to construct a temporary noise wall for dust reduction purposes.

**Response to Comment 20-18**

The Department and STA are committed to rerouting truck traffic away from the vicinity of the high school when school is in session.

**Response to Comment 20-19**

Noise monitoring was focused primarily on the capacity-increasing segments of I-680, I-80, and SR 12, because that is where traffic noise impacts would be expected to occur as a result of the project. Monitoring sites were selected at locations within 500 feet of these facilities, consistent with the Department's protocol. The edge of the nearest outfield at Rodriguez High School is 900 feet from I-680, so it was not selected for noise monitoring. However, the realignment of Lopes Road would pass within 500 feet of the ball field, so a noise prediction site C15 was modeled at the high school's outfield to disclose predicted noise levels at the high school property.

The Noise Study Technical Report concluded that the predicted traffic noise level at the Rodriguez High School site (predicted noise location C15 in the Noise Study Technical Report) would be 57 dBA under all build alternatives. This predicted noise level is well below the impact threshold of 66 dBA for an Activity Category B land use, such as Rodriguez High School and thus not considered adverse or significant and not warranting evaluation of noise abatement for this land use. A copy of the Noise Study Technical Report will be provided to the FSUSD.

**Response to Comment 20-20**

Table 3.2.7-4 in the Draft and Final EIR/EIS summarizes predicted traffic noise levels at representative locations along the I-80/I-680 corridor. The table is a condensed version of the noise modeling analysis table that appears in Appendix C of the Noise Study Technical Report. The intent of summarizing the table is to highlight locations that would experience traffic noise impacts due to the project, and also include representative locations adjacent (i.e., within 500 feet) to the primary capacity-increasing segments of I-80, I-680 and SR 12. The summary format of Table 3.2.7-4 was used to simplify the data presentation and focus on areas where traffic noise impacts are predicted to occur as a result of the project. A full report of the noise analysis locations is included in Appendix C of the Noise Study Technical Report. A copy of the Noise Study Technical Report will be provided to the FSUSD.

The Noise Study Technical Report concluded that the predicted noise level at the Rodriguez High School site (predicted noise location C15 in the Noise Study Technical Report) would be exposed to a traffic noise level of 57 dBA under all build alternatives. This predicted noise level is below the impact threshold of 66 dBA for an Activity Category B land use, such as Rodriguez High School. A noise barrier was not evaluated for the high school because noise impacts requiring abatement are not predicted to occur there as a result of the project.



**Response to Comment 20-21**

Noise levels in Area C, the area where Rodriguez High School is located, do not approach or exceed 67 dBA. The results of the Noise Study Technical Report concluded that the predicted noise level at Rodriguez High School (predicted noise location C15 in the Noise Study Technical Report) would be exposed to a traffic noise level of 57 dBA with the project under all build alternatives.

Please note that the noise modeling results presented in Table 3.2.7-4 is a summary of the full list of receivers shown in Appendix C of the Noise Study Technical Report, as described in the response to the comment above. The primary intent of the table is to disclose all noise impacts due to the project, where they occur. The supporting data for the noise analysis is fully documented in the technical report. See response to comment 20-19 regarding noise monitoring.

**Response to Comment 20-22**

The project does not increase capacity on Red Top Road or Fermi Road. Therefore traffic noise on Red Top Road and Fermi Road was not studied in this report. Further, construction activities are not likely to result in noise impacts at the high school. Due to the distance of the school to construction areas, construction-generated noise levels at the school are not expected to be significant. Construction noise would be short-term, intermittent, and masked by local traffic noise. Please refer to response to comment 20-25 for a discussion regarding construction-noise impacts and minimization measures.

**Response to Comment 20-23**

As described above in response comment 20-2, under Alternative C, since the publication of the Draft EIR/EIS, the Lopes Road realignment has been modified to avoid displacing landscaping areas beyond the outfield fence of the school's softball field as originally analyzed. With this modification to the project description, the landscaped area of concern would not be affected.

However, the location of the existing Red Top Road/Lopes Road intersection is fixed. The proposed alignment for the relocated Lopes Road is based upon a combination of needing to connect to existing Lopes Road at the northerly and southerly ends, the proposed I-680 alignment and the design speeds of the two facilities. As such, Lopes Road cannot be realigned to be closer to I-680.

Further, acquiring property to serve as noise abatement to buffer noise impact to the high school is not warranted based on the noise analysis contained in the EIR/EIS which determined that future noise levels under all build alternatives would be well below the impact threshold of 66 dBA.

**Response to Comment 20-24**

The commenter refers to this section of the CCR:

“All districts shall select a school site that provides safety and that supports learning. The following standards shall apply: ..... The site shall not be adjacent to a road or freeway that any site-related traffic and sound level studies have determined will have safety problems or sound levels which adversely affect the educational program.”

As described in the Noise Study Technical Report, the noise prediction site at C15 (at Rodriguez High School's softball field adjacent to Lopes Road) is approximately 100 feet from the proposed realignment of Lopes Road. Site C15 can be considered as a screening-level analysis to determine if traffic noise impacts due to the project would be of concern on the school property. Future traffic noise levels due to the project are not predicted to result in a traffic noise impact at site C15.

The Noise Technical Report concluded that the proposed project will not cause noise levels that would interfere with use of outdoor areas at the high school for educational purposes. Thus, traffic noise due to the project is not expected to result in noise impacts in interior or exterior classroom spaces, nor would it result in reduced ability to discern speech.

**Response to Comment 20-25**

Noise generated by construction equipment at a distance of 50 feet range from 80 dBA to 89 dBA. The distance from the proposed realigned Lopes Road to the outfield fence of the school's softball field is approximately 150 feet. Noise produced by construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. Due to this distance, construction-generated noise levels would be reduced by approximately 12 dB at the outfield fence. Construction noise is also short-term, intermittent, and would be masked in-part by local traffic noise. Minimization measures in Section 3.2.7 of the Draft and Final EIR/EIS would require the use of sound-control devices on construction equipment, rescheduling construction activities to non-sensitive hour of the day, and advance noticing to sensitive receptors to further reduce construction-noise impacts. Based on the analysis conducted and minimization measures included in the EIS/EIR construction-period noise effects at the High School would not be significant.

**Response to Comment 20-26**

Please refer to response to comment 20-25 above.

**Response to Comment 20-27**

The project and the realignment of Lopes Road have benefits that support the position of consistency with the land use goal of the Solano County General Plan. As described above in response comment 20-2, under Alternative C, since the publication of the Draft EIR/EIS, the Lopes Road realignment has been modified to avoid displacing landscaped areas beyond the outfield fence of the school's softball field as originally analyzed. Further, the realigned portion of Lopes Road between Red Top Road and Fermi Drive will include sidewalks, improving pedestrian safety. As discussed in responses to comments 20-11, 20-12, 20-13, 20-16, and 20-17, air quality analyses conducted for the project determined that no ambient air quality standard would be exceeded and that measures have been included to reduce MSAT and construction period air quality impacts.

**Response to Comment 20-28**

The project is consistent with Objective CI-1 of the City of Fairfield General Plan, to establish a circulation system that is consistent with the land use patterns of the city. As described above in response comment 20-2, under Alternative C, since the publication of the Draft EIR/EIS, the Lopes Road realignment has been modified to avoid displacing landscaped areas beyond the

outfield fence of the school's softball field as originally analyzed. The landscaped area of concern would not be affected.

**Response to Comment 20-29**

As described above in response comment 20-2, under Alternative C, since the publication of the Draft EIR/EIS, the Lopes Road realignment has been modified to avoid displacing landscaped areas beyond the outfield fence of the school's softball field as originally analyzed. The landscaped area of concern would not be affected. The Department and STA share the concerns of FSUSD regarding student safety and will work with FSUSD to implement measures to increase safety.

**Response to Comment 20-30**

As described above in response to comment 20-2, as part of Alternative C, a PG&E valve lot (a gas transmission utility) would be relocated to a vacant parcel owned by the FSUSD at the former Green Valley Middle School location at 3630 Ritchie Road in Fairfield. The relocated valve lot would occupy a 1.3-acres portion of the larger 7.69-acre FSUSD parcel. This relocation would require the acquisition of 1.3 acres from FSUSD. The 7.69-acre parcel would be divided into two separate parcels: 1) one 1.3-acre parcel for the relocated PG&E valve lot which would be acquired by STA, and 2) the remainder of the parcel (6.39 acres) for future development of which is not part of this project. The project description (in Section 2.3.5 of the Final EIR/EIS) and associated impact areas have been revised to describe this change.

With this change in the project description, the Department and STA have been in discussions with the FSUSD about purchasing all or a portion of the former Green Valley Middle School site. In these discussions, FSUSD has indicated their interest in such a purchase and that it could facilitate their goals of establishing a new elementary school site elsewhere in the city of Fairfield.

**Response to Comment 20-31**

The Department and STA acknowledge FSUSD's concerns regarding the potential impacts of the proposed project on the high school and on the former Green Valley Middle School site and have responded to these concerns as described above.



Linda S. Adams  
Secretary for  
Environmental Protection

## California Regional Water Quality Control Board

### San Francisco Bay Region

1515 Clay Street, Suite 1400, Oakland, California 94612  
(510) 622-2300 • Fax (510) 622-2460  
<http://www.waterboards.ca.gov/sanfranciscobay>



Arnold Schwarzenegger  
Governor

**Letter 21**

October 27, 2010  
CIWQS Place No.: 728678

*Sent via electronic mail: No hard copy to follow*

California Department of Transportation  
Attn: Howell Chan  
[Howell\\_Chan@dot.ca.gov](mailto:Howell_Chan@dot.ca.gov)  
P.O. Box 23660  
Oakland, CA. 94623-0660

**SUBJECT: Draft Environmental Impact Report for the Interstate 80/Interstate 680/State Route 12 Interchange Project (SCH No. 2003052021)**

Caltrans Project No.: EA 0A5300

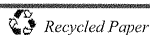
Dear Mr. Chan:

Thank you for giving San Francisco Bay Regional Water Quality Control Board (Water Board) staff the opportunity to review the Draft Environmental Impact Report (DEIR) for the Interstate 80/Interstate 680/State Route 12 Interchange Project (Project). The Project proposed by the California Department of Transportation (Department) involves improvements to the Interstate 80 (I-80)/Interstate 680 (I-680)/State Route 12 (SR 12) interchanges and relocation of the westbound truck scales facility in the vicinity of the city of Fairfield, Solano County. The Department is proposing improvements on an approximate 4.5-mile-long segment of I-80 between Red Top Road and Abernathy Road, an approximate 3.5-mile-long segment of I-680 between Gold Hill Road and I-80, 2.0-mile-long segment of SR 12 West (SR 12W) between 0.5 mile west of Red Top Road and I-80, and an approximate 2.5-mile-long segment of SR 12 East (SR 12E) between I-80 and Main Street in Suisun City.

Two different Project alternatives are presented in the DEIR, with two accompanying “fundable first phases” that the Department has provided separate impact totals for. This comment letter does not consider the impacts of these first phases separate from the overall Project proposal, as it is assumed that the Department intends to implement the entire Project and rely on the DEIR as its CEQA environmental review document; as such, impacts for the entire Project must be evaluated simultaneously, and not be considered piecemeal under a presumption that potential impacts may be less because a later stage of the Project is not yet funded.

21-1

*California Environmental Protection Agency*



Mr. Howell Chan  
California Department of Transportation

- 2 -

Draft EIR Comments: I-80/I-680/SR 12 Interchange Project  
CIWQS Place No.: 728678

The formal DEIR comment period ended October 18, 2010, however, the Water Board has reviewed the DEIR and has the following important concerns that the Department must consider to prevent future permitting delays.

21-2

### **Mitigation and Impacts to Jurisdictional Wetlands, Waters, and Riparian Resources**

Depending upon the chosen design alternative, the proposed Project would permanently impact approximately 17 or 19 acres<sup>1</sup> of jurisdictional wetlands and waters, and temporarily impact approximately 8.3 or 4.7 acres of jurisdictional wetlands and waters.

#### *Avoidance and Minimization of Permanent Impacts*

The Department must fully evaluate all avoidance options to reduce the significant level of proposed permanent impacts to jurisdictional resources. Page 3.2.2-7 of the DEIR notes that, “[E]xcept at bridges, no retaining walls are anticipated.” The Department has a history of utilizing retaining walls to avoid and minimize direct fill to wetlands, yet, the limited use of retaining walls suggests that the Department may not have fully investigated, or reported, all opportunities and efforts to avoid and minimize impacts to jurisdictional resources through use of retaining walls. The Department must provide a discussion of its impact avoidance and minimization efforts with respect to incorporation of retaining walls into the Project design.

21-3

The Water Board supports the Department’s proposal to remove existing piers and supports from the creek beds of Dan Wilson and Suisun Creeks, and to replace the associated bridges with clear-span bridges. However, bridges with supports and/or piers below ordinary high water are being proposed over Ledgewood Creek to accommodate the SR 12 on- and off-ramps. Ledgewood Creek provides habitat for the federally-listed Central California Coast Steelhead, and Chinook salmon, a federal species of special concern. Installation of piers below the ordinary high water mark of Ledgewood Creek may negatively affect habitat for these species. To demonstrate the Department has fully avoided and minimized impacts to Ledgewood Creek and special-status salmon, the feasibility of clear-span bridges over Ledgewood Creek must be evaluated.

21-4

#### *Temporary Impacts to Wetlands from Construction Access*

The Department proposes approximately 7.2 or 3.6 acres of temporary impact to jurisdictional perennial marshes, alkali seasonal marshes, and seasonal wetlands, depending upon the chosen Project alternative. The DEIR doesn’t describe, in detail, the activities that will result in temporary impacts, and the nature of the temporary impacts to the wetlands. If temporary impacts are proposed as a result of construction access, then the Department must discuss the

21-5

<sup>1</sup> All impact totals cited in this letter that follow the format, “The Department proposes to impact X or Y acres, depending upon the chosen project alternative,” refer to X or Y acres of impact proposed in Project alternatives B and C, respectively.

***California Environmental Protection Agency***



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Mr. Howell Chan  
California Department of Transportation

- 3 -

Draft EIR Comments: I-80/I-680/SR 12 Interchange Project  
CIWQS Place No.: 728678

activities that will be done atop the identified wetlands, as well as the avoidance and minimization measures that will be employed.

21-5  
cont.

Although the DEIR doesn't specify that geotextile and aggregate are proposed to minimize impacts to wetlands, the Department has previously proposed temporary fill of wetlands with these materials to allow for a construction platform or staging area, while maintaining that the underlying wetlands would be protected. Use of geotextile and aggregate as a heavy equipment construction platform would most likely result in compaction of wetland soils, degradation of wetland hydrology, and the high likelihood of aggregate material being discharged to wetlands. The Department must avoid compaction of the wetland soils to avoid permanent impacts to wetlands. A timber mat system is a significantly less environmentally damaging alternative than use of geotextile and aggregate. A timber mat would redirect a significantly greater amount of tension upward, away from the wetland when compressive forces are applied. The Final EIR should identify the nature of the proposed temporary impacts and propose the least environmental damaging practicable alternative for protecting wetlands during construction access, such as a timber mat system. The Department must also design the Project to minimize the time duration that any access roads or staging areas are employed within any wetlands.

21-6

21-7

*Impacts to and Mitigation for Linear Features*

Please note that impacts to waters classified in the DEIR as "perennial drainages" and "jurisdictional seasonal drainages," will be evaluated by the Water Board not only in terms of acreage, but also the linear feet of impact. The DEIR did not provide the linear feet of impact to these jurisdictional features. After the Department has demonstrated full avoidance and minimization of impacts to jurisdictional waters, the Water Board will require riparian mitigation for impacts to perennial creeks at a location in the same watershed as the Project. The Water Board will not accept areal, wetland-type mitigation as mitigation for impacts to perennial creeks; the mitigation must be riparian in nature and proposed in terms of the linear feet of benefit to be provided. Depending upon the beneficial uses being provided by the permanently impacted jurisdictional seasonal drainages, areal, wetland-type mitigation may, or may not be permitted for permanent impacts to those jurisdictional features.

21-8

As noted in our "Comments Relating to the I-80/I-680/SR 12 Interchange Project NEPA/404 Integration MOU Checkpoint Meeting" letter, addressed to the Department and dated June 5, 2007, the Water Board expects the Department to identify riparian restoration opportunities in the vicinity of the Project site. The DEIR mentions the possibility of providing mitigation at the Lynch Canyon Open Space Preserve in collaboration with the Solano Resource Conservation District and Solano Land Trust. The Water Board supports this mitigation option. However, as noted in our June 2007 letter, the Water Board will not accept riparian mitigation bank credits (as proposed on DEIR pg. 3.3-17) for any impact associated with Project implementation.

21-9

Page 3.3-59 of the DEIR discusses Chinook salmon and Central California Coast steelhead fish passage conditions in Ledge Creek, beneath eastbound SR 12, and notes that "[R]esults

21-10

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Mr. Howell Chan  
California Department of Transportation

- 4 -

Draft EIR Comments: I-80/I-680/SR 12 Interchange Project  
CIWQS Place No.: 728678

from modeling conducted for the fish passage assessment indicate that the proposed extension of the culvert under SR 12E would exacerbate existing shallow water conditions during the migration season and would worsen fish passage conditions relative to current conditions.” The DEIR then proposes installation of low-flow walls or offset baffles as mitigation for this impact. The Department must evaluate the feasibility of replacing the existing box culvert with a clear-span bridge at this location. The Water Board may consider Project mitigation credit for such a retrofit.

21-10  
cont.

*Riparian Impacts and Mitigation*

Project implementation would result in approximately 1.3 or 1.1 acres of permanent impacts to riparian woodland, depending upon the chosen Project alternative. Page 3.3-8 of the DEIR notes that “permanent loss of riparian vegetation will be compensated for at a ratio to be determined in cooperation with the California Department of Fish and Game (CDFG).” Please note that the Water Board also has jurisdiction of riparian woodland; adequacy of any proposed mitigation must be determined in cooperation with the Water Board, as well as CDFG.

21-11

*Waste Discharge Requirements*

Please be aware that because the Department is projecting a significant area of permanent impact to jurisdictional waters and wetlands, it is possible the Project may require the review of Waste Discharge Requirements/401 Certification before our Board, which tends to be a lengthier certification process than issuance of a 401 certification signed by the Water Board Executive Officer. To the degree the Department can reduce permanent impacts to jurisdictional waters and wetlands, the possibility the certification will need to go before our Board will be reduced. Should the Department be unable to significantly reduce projected permanent impacts, we highly recommend consulting with Water Board staff and identifying potential mitigation opportunities as soon as possible.

21-12

**Post-Construction Stormwater Runoff Impacts**

Depending upon the chosen design alternative, the Department is proposing either approximately 128 or 123 acres of new impervious surface, and either approximately 252 or 220 acres of reworked impervious area. Impervious areas would be a source of automobile-related pollutants and may result in alterations to local hydrology.

*Pollutant Treatment*

As noted in the Study, the Water Board will require the Department provide treatment of stormwater runoff from new and reconstructed areas of impervious surface. Specifically, the Water Board shall require treatment of stormwater runoff from a Project area equivalent to the area of all new and redeveloped impervious surface.

21-13

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media with a depth of no less than eighteen inches. The soil media shall be approximately 50% - 70% sand and 30% - 40% compost. The mix may also include topsoil or other soil ingredients with clay content not exceeding 3% overall. These soil media specifications may be altered to conform with alternative mixes that have been demonstrated to effectively filter stormwater pollutants and provide at least 5 inches per hour permeability over the long term. The Bay Area Stormwater Management Agencies Association (BASMAA) is currently developing specifications for a soil mix that will be used by municipalities to meet treatment requirements of the recently issued Municipal Regional Permit<sup>2</sup>. The Department may utilize the final BASMAA soil mix specification, or the current Contra Costa Clean Water Program (CCCWP) soil mix<sup>3</sup>, which is very similar to the BASMAA mix under development. Until the BASMAA soil mix is accepted by the Water Board, the Department should use an engineered soil mix based on the above criteria, such as the CCCWP criteria.

21-13  
cont.

Page 3.2.2-9 of the DEIR notes that “[B]ecause of the limited permeability of the soils and potentially high groundwater, infiltration devices and other filters allowing percolation of stormwater back into the ground are not a consideration.” The Water Board does not find that this statement, by itself, releases the Department from consideration of biofiltration swales, designed as specified above. Page 3.2.2-12 of the DEIR notes that groundwater levels in the Project area range from three feet to 18 feet below ground surface. Biofiltration swales may be feasible in locations where groundwater is as low as approximately 3.5 feet below the ground surface. Underdrains may also be used in instances where backing-up of stormwater is a concern. If the Department proposes swales that are not designed in a manner consistent with the above guidelines, full treatment credit will not be granted for those swales.

#### *Hydromodification*

Added impervious areas may result in alterations to existing hydrologic regimes, resulting in erosion and/or changes of sediment transport in receiving waters (hydromodification). The Water Board finds that due to the significant amount of added impervious area, the proposed project may cause hydromodification impacts to receiving waters.

The DEIR does not address potential hydromodification effects that may result from Project implementation; Page 3.2.2-6 of the DEIR notes that “the exact amount of new or reconstructed pavement tributary to each waterway for each project alternative has not been determined at this phase of the project.” The DEIR is lacking a proper assessment of potential hydromodification impacts; hydromodification effects to the Project’s receiving waters cannot be assessed if the area of proposed new impervious area draining to those waters has not been determined. The DEIR infers on page 3.3-97, that there would be a less-than-significant impact to special status fish species as a result of changes in channel morphology, in part, because “no long-term changes to channel morphology are expected.” However, an analysis of potential hydromodification impacts to each of

21-14

<sup>2</sup> Water Board Order No. R2-2009-0074, NPDES Permit No. CAS612008

<sup>3</sup> [http://www.cccleanwater.org/Publications/Guidebook/AppendixB\\_1-21-09\\_xc3-17-09.pdf](http://www.cccleanwater.org/Publications/Guidebook/AppendixB_1-21-09_xc3-17-09.pdf)

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the creeks has not been performed, and therefore, the Department has not done the necessary exercise(s) to determine any likelihood of permanent changes to creek morphology, and any resultant impacts to habitat of special status fish species.

The Department must characterize the extent project implementation will result in hydromodification impacts, and propose mitigation for any significant impacts. Waste Discharge Requirements and/or 401 water quality certification will not be issued by the Water Board for any portion of the Project until hydromodification impacts have been evaluated and appropriately mitigated.

21-14  
cont.

### **Waters of the State**

Page 3.3-17 of the DEIR notes that “Drainages that are not under USACE jurisdiction but have beneficial uses would be considered waters of the State that would be regulated by the RWQCB...” Waters of the State are defined in the Porter-Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The presence of beneficial uses may be a consideration in determining if an aquatic resource is a State water, however, it is not a requisite attribute; *potential* beneficial uses may also be a consideration in determining whether an aquatic resource is a waters of the State. For instance, a cement-lined drainage has the potential to provide groundwater recharge and wildlife habitat, although, the cement lining may be preventing that drainage from possessing these beneficial uses. Similarly, a wetland may have been degraded by localized hydrological or direct physical alterations, but the beneficial uses of that wetland may be restored by reversion of those alterations.

21-15

### **No Net Loss**

In the Cumulative Impacts section of the DEIR, page 3.6-6, the Department states that, “the cumulative impacts of the proposed project in combination with other existing and reasonably foreseeable projects on wetland resources would be reduced to a less than significant level through implementation and compliance with the no net loss requirements under Section 404 of the Clean Water Act.” This section incorrectly states that the Clean Water Act requires no net loss of wetlands. No net loss of wetlands refers to a federal policy that establishes a goal to achieve no net loss in the functions and values of the nation’s wetlands. The existence of the policy does not guarantee that cumulative impacts to wetlands will be reduced to a less-than-significant level; it is recognized in the *Memorandum of Agreement Between The Department of the Army and The Environmental Protection Agency, The Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines*<sup>4</sup>, that, “no net loss of wetlands functions and values may not be achieved in each and every permit action.” The language in this section of the DEIR should be revised to omit reference to no net loss as a requirement. Additionally, this section should not make a claim that existence of the no net loss policy will ensure that cumulative impacts to wetlands will be reduced to a less-than-significant level.

21-16

<sup>4</sup> <http://water.epa.gov/lawsregs/guidance/wetlands/mitigate.cfm>



Mr. Howell Chan  
California Department of Transportation

- 7 -

Draft EIR Comments: I-80/I-680/SR 12 Interchange Project  
CIWQS Place No.: 728678

Water Board staff look forward to meeting with Department and other resource agency staff to discuss the Project and further avoidance and minimization options. If you have any questions, comments, or concerns, please contact me at (510) 622-2506, or via e-mail to [BThompson@waterboards.ca.gov](mailto:BThompson@waterboards.ca.gov).

Sincerely,



Brendan Thompson  
Environmental Specialist

cc (via e-mail): State Clearinghouse  
Mr. Hardeep Takhar, Caltrans  
Mr. Dale Bowyer, Water Board  
Ms. Melissa Escaron, CDFG  
Ms. Shin-Roei Lee, Water Board  
Ms. Melanie Brent, Caltrans  
Mr. John Cleckler, USFWS

Ms. Carolyn Mulvihill, EPA  
Ms. Andrea Meier, USACE  
Ms. Janet Adams, STA  
Ms. Maggie Townsley, ICF International  
Mr. Cyrus Vafai, Caltrans  
Ms. Jacqueline Pearson-Meyer, NOAA/NMFS

*California Environmental Protection Agency*



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**Comment Letter 21, Brendan Thompson, Environmental Specialist, California Regional Water Quality Control Board, 10/27/10**

**Response to Comment 21-1**

Comment noted.

**Response to Comment 21-2**

Comment noted.

**Response to Comment 21-3**

During the final design phase, the designers will review opportunities to avoid and minimize impacts to jurisdictional wetlands through the use of steeper embankment slopes (2:1 instead of the advisory design standard 4:1 slope) and retaining walls. A mitigation measure was added for Alternatives C and C, Phase 1 (see Section 3.3.5.1) that reduces potential impacts on wetlands by revising the project design to include a retaining wall of the south side of SR 12E.

**Response to Comment 21-4**

The feasibility of constructing a clear-span bridge over Ledgewood Creek with improvements to SR 12E has been reviewed as a part of Alternative C, Phase 1 and has been determined to not be feasible at this time. The existing SR 12E crossing over Ledgewood Creek consists of a 5-cell, 106 foot long box culvert. Alternative C, Phase 1 would widen SR 12E by one lane in the eastbound direction (a total of 14 feet, 12 foot lane plus 2 feet shoulder widening). It is not feasible or cost effective to replace the existing box culvert with a new bridge to accommodate the incremental widening proposed in Alternative C, Phase 1 due to cost and traffic handling. Further, it is not possible to close the regional facility to raise the profile of SR 12 and replace the box culvert with a bridge. This option may be re-examined as a part of a future phase for Alternative C, should additional funding be identified.

**Response to Comment 21-5**

Temporary activities atop wetlands are likely to result from light grading and storm water quality improvements, but could also result from construction access through a confined working space or equipment operating in areas constructing permanent improvements.

**Response to Comment 21-6**

Comment noted. The use of geotextile and aggregate will be avoided in wetlands; timber mats and other methods to minimize compaction of wetland soils will be used.

**Response to Comment 21-7**

Construction staging plans will be developed during the final design phase, taking into account public safety, right-of-way limits, environmental and permitting construction windows, and logical, feasible construction sequencing. To the extent feasible, duration of temporary impacts to wetlands will be minimized.

**Response to Comment 21-8**

Impacts to perennial and seasonal drainages have been quantified and added in a new column in Tables 3.3.2-1 through 3.3.2-4 in Section 3.3.2.1 of the Final EIR/EIS. Mitigation proposed for

impacts to perennial creeks are riparian in nature, but the mitigation in Section 3.3.2.1 has been modified to include the requirement for compensation to be in terms of linear feet of benefit provided, rather than in acres.

**Response to Comment 21-9**

The Department and STA are currently investigating riparian restoration opportunities on properties in the immediate vicinity of the project. The Department and STA have prepared a draft conceptual mitigation plan as part of the formal NEPA/404 integration process which the RWQCB has participated and provided input.

**Response to Comment 21-10**

As noted in the response to comment 21-4, it is not feasible or cost effective to replace the existing box culvert with a clear span bridge as a part of the improvements for Alternative C, Phase 1. Replacing the existing box culvert with a bridge would require raising the profile of SR 12 by approximately 6 feet to accommodate the bridge superstructure remaining above the Ledge Creek water surface elevation during flood events. To replace the culvert with a clear span structure would entail closing SR 12E for nearly a year and no detour would be feasible as part of Alternative C, Phase 1. Under Alternative C, traffic could be detoured through the proposed Beck Avenue interchange, though it would entail considerable overbuilding of the ramps to accommodate the detour traffic. Therefore, while constructing a clear span bridge over Ledge Creek is not feasible as part of Alternative C, Phase 1, it may be re-examined as a part of a future phase for Alternative C, should additional funding be identified.

**Response to Comment 21-11**

Comment noted. The NEPA/404 integration process has included discussion of impacts to seasonal and perennial drainage features that fall under the jurisdiction of the RWQCB.

**Response to Comment 21-12**

Comment noted. Through the NEPA/404 integration process the Department and STA have conducted an evaluation of avoidance and minimization measures for impacts to CWA and 404 waters. This evaluation resulted in the ability to reduce the permanent fill of CWA and 404 waters by 1.8 acres.

**Response to Comment 21-13**

The bioswales proposed by the Department to mitigate potential stormwater runoff impacts will be designed to meet Water Board criteria.

**Response to Comment 21-14**

Hydromodification requirements are dependent on characteristics of the receiving waters. Certain characteristics preclude the need for hydromodification facilities. For instance, hardened channels, tidally influenced waterways and streams that experience aggradation are not subject to hydromodification facilities. Adjacent to the project footprint, some of the streams are within the influence of the mean high tides. Other streams are actively aggrading (filling) due to the flattened gradients from the upper watershed reaches to the near tide reaches. The Department and STA are committing to characterizing the extent of the project's hydromodification impacts and would identify measures to reduce impacts prior to applying for a Section 401 Water Quality Certification.

**Response to Comment 21-15**

Comment noted. Waters of the state are non-jurisdictional features in the study area include seasonal drainages (irrigation and roadside ditches) and seasonal wetlands. Waters of the state in the study area are depicted in Figures 3.3-2a, 3.3-2b, 3.3-2c, and 3.3-2d in Volume 2 of the EIR/EIS and listed in Tables 3.3.2-1 through 3.3.2-4 in the Final EIR/EIS.

The word “potential” has been added to the discussion of waters of the State in the Final EIR/EIS in Section 3.3.

**Response to Comment 21-16**

The cumulative analysis discussion in Section 3.6 has been revised to clarify that federal policy (not the Clean Water Act) establishes the goal of no net loss of functions and values of wetlands. The revision also removes the statement that compliance with no net loss requirements would reduce cumulative impacts to less-than-significant, and states that cumulative impacts on wetlands are reduced over time through compliance with the no-net-loss goal.



## COMMENT SHEET

Comment 22

Public Meeting  
September 23, 2010  
6:00 – 8:00 PM

Solano County Administration Building, Room 1600  
675 Texas Street, Fairfield, CA

Name: MANDI SAHNI Affiliation: \_\_\_\_\_  
Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
City/State/Zip: FAIRFIELD CA 94534 Email: \_\_\_\_\_

Comments may be submitted tonight or mailed/mailed to:

Caltrans, District 4  
Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660  
E-mail: [Howell\\_chan@dot.ca.gov](mailto:Howell_chan@dot.ca.gov)

Please note: Comments must be received by  
5:00 p.m. on Monday, October 11, 2010

***I would like to submit the following comments on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the I-80 I-680 SR12 Interchange Project:***

WE OWN CHEVRON, JIB ON SOISON VALLEY  
EXIT AND THE VACANT LAND. BOTH  
THE ALTERNATIVES EFFECT OUR  
BUSINESS. I AM TRYING TO  
MARKET THE VACANT LAND NEXT TO US (CHEVRON)  
AND NOW I CANNOT SINCE WE DONT KNOW  
WHICH PLAN ARE YOU GOING. I HAVE TO  
SIT ON THIS LAND TILL YOU DECIDE. ~~AND~~

22-1

(Please use reverse side if additional space is needed.)

*Thank you for participating in tonight's Public Hearing.*

**Public Meeting Comment 22, Manoj Sahni, Comment Sheet, 09/23/10**

**Response to Comment 22-1**

The commenter expresses a general concern about the project alternatives and impacts on their property. During the final design and right-of-way negotiation process a more exhaustive assessment of specific impacts to each property will be undertaken. Property owners will be compensated in full accordance with Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Alternative C has been selected as the preferred alternative. An explanation of this process and the reasons for this decision are provided in Section 2.5 of the Final EIR/EIS.





## COMMENT SHEET

Comment 23

Public Meeting  
September 23, 2010  
6:00 – 8:00 PM  
Solano County Administration Building, Room 1600  
675 Texas Street, Fairfield, CA

Name: WOODY DARNBUE Affiliation: SUPERSTORE IND. SUNNYSIDE FARM  
Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
City/State/Zip: FAIRFIELD CA. 94533 Email: \_\_\_\_\_

Comments may be submitted tonight or mailed/emailed to:

Caltrans, District 4  
Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660  
E-mail: Howell\_chan@dot.ca.gov

Please note: Comments must be received by  
5:00 p.m. on Monday, October 11, 2010

I would like to submit the following comments on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the I-80 I-680 SR12 Interchange Project:

ALTERNATIVE C - IMPROVED INTERCHANGE AT I-80 AND RED TOP RD.  
THE EAST SIDE OF ON RAMP/OFF RAMP, TO SR12 FROM RED TOP RD.  
IS TOO CLOSE TO EXISTING BUILDING AND TRAFFIC FLOW  
AROUND TO THE BACK OF SUNNYSIDE RECOVERING BAYS  
S.S.I./SUNNYSIDE IS ASKING FOR DETAILED PLANS OF BOTH  
B AND C AT RED TOP RD.  
B IS PUTTING TOO MUCH IN ONE SMALL PLACE

23-1

(Please use reverse side if additional space is needed.)

Thank you for participating in tonight's Public Hearing.

**Public Meeting Comment 23, Woody Darnelle, SuperStore Ind. Sunnyside Farms, Comment Sheet, 09/23/10**

**Response to Comment 23-1**

The commenter expresses a concern about the project alternatives and impacts on their property. The Department has conducted an analysis of impacts to private property based on the engineering plans for each alternative and included that analysis and its findings in the EIR/EIS (see Section 3.1.4). During the final design and right-of-way negotiation process further design details will be developed. Property owners will be compensated in full accordance with Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.



## COMMENT SHEET

Comment 24

Public Meeting  
September 23, 2010  
6:00 – 8:00 PM

Solano County Administration Building, Room 1600  
675 Texas Street, Fairfield, CA

Name: LESLEY BRUNNER Affiliation: HOW GREEN VALLEY LAKE  
Address: \_\_\_\_\_ none: \_\_\_\_\_  
City/State/Zip: FAIRFIELD CA 94534 Email: \_\_\_\_\_

Comments may be submitted tonight or mailed/mailed to:

Caltrans, District 4  
Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660  
E-mail: Howell\_chan@dot.ca.gov

Please note: Comments must be received by  
5:00 p.m. on Monday, October 11, 2010

**I would like to submit the following comments on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the I-80 I-680 SR12 Interchange Project:**

I ~~LIKE~~ LIKE OPTION C. WE REALLY NEED  
THE NEW WIDER OVERPASS AT GREEN VALLEY RD.  
ALSO NEED AN OFF RAMP AT SAKSHIN VALLEY RD.  
FAIRFIELD HAS APPROVED A 400 HOME PROJECT  
FURTHER ALONG GREEN VALLEY RD. THIS MEANS  
THERE WILL BE AT LEAST 2000 RESIDENCES  
USING THE GREEN VALLEY ON + OFF RAMP.  
WE SHOULD ALSO ADDRESS PEDESTRIANS TRYING  
TO CROSS GREEN VALLEY RD OR BUSINESS CENTER  
AT THIS POINT IT IS DANGEROUS, WITH NEW  
ON + OFF RAMPS, IT WILL BECOME DEADLY.

24-1

24-2

(Please use reverse side if additional space is needed.)

Thank you for participating in tonight's Public Hearing.

**Public Meeting Comment 24, Lesley Brunner, HOA Green Valley Lake, Comment Sheet, 09/23/10**

Response to Comment 24-1

Comment noted.

Response to Comment 24-2

The Draft EIR/EIS traffic forecasts include all residential and non-residential growth expected through 2035, and the recently-approved 400-unit project referred to is included within those projections. The intersection of Green Valley Road/Business Center Drive currently includes crosswalks on all four legs, pedestrian push-buttons, and minimum pedestrian crossing times. This intersection is projected to operate below the City of Fairfield's LOS standard of D under 2035 PM peak hour conditions, for the No Build and Phase 1 alternatives, but will operate acceptably under 2035 PM peak hour conditions for the Full Build Alternatives. The Draft EIR/EIS's avoidance, minimization and mitigation measures include the design and construction of intersection improvements "to minimize the impact of traffic pattern changes associated with the proposed project's ramp terminal and non-ramp terminal intersections." The improvements would be designed by the Department in cooperation with the City of Fairfield, in the case of the subject intersection, and would therefore conform to the City's requirements for adequate pedestrian accommodation and service.





## COMMENT SHEET

Comment 25

Public Meeting  
September 23, 2010  
6:00 – 8:00 PM

Solano County Administration Building, Room 1600  
675 Texas Street, Fairfield, CA

Name: Linda Mellor Affiliation: Homeowner  
Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
City/State/Zip: Fairfield, CA 94534 Email: \_\_\_\_\_

Comments may be submitted tonight or mailed/emailed to:

Caltrans, District 4  
Attn: Howell Chan  
Environmental Analysis Office Chief  
P.O. Box 23660, MS-8B  
Oakland, CA 94623-0660  
E-mail: [Howell\\_chan@dot.ca.gov](mailto:Howell_chan@dot.ca.gov)

Please note: Comments must be received by  
5:00 p.m. on Monday, October 11, 2010

**I would like to submit the following comments on the Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the I-80 I-680 SR12 Interchange Project:**

- Alternative C seems like a much more viable solution  
for many reasons:
- 1) Addresses having an onramp for Westbound  
traffic @ Suisun Valley Rd
  - 2) Moves the interchange away from the congestion  
of the truck stop
  - 3) Creates a combined interchange for I80 I680 & 12  
toward Napa
  - 4) From my understanding C creates a new  
interchange for high school traffic
  - 5) Moves a noisy interchange away from homes  
(Please use reverse side if additional space(s) needed.)
  - 6) Spaces out the mess of traffic occurring - truck stop; 80,

25-1



***Public Meeting Comment 25, Linda Mellor, Comment Sheet, 09/23/10***

***Response to Comment 25-1***

Comment noted.

**Comments 26, 27, 28**

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
PUBLIC MEETING  
I-80/I-680/SR 12 INTERCHANGE PROJECT  
DRAFT ENVIRONMENTAL IMPACT  
REPORT/ENVIRONMENTAL IMPACT STATEMENT

Thursday, September 23, 2010

6:00 o'clock p.m.

Solano County Administration Building

675 Texas Street

Room 1610

Fairfield, California

REPORTED BY: MARY DUTRA, CSR #9251

1 Caltrans and the STA have completed the  
2 environmental analysis for the I-80/I-680/SR 12  
3 Interchange Project. Required by the National  
4 Environmental Policy Act (NEPA) and the California  
5 Environmental Quality Act (CEQA) the Draft EIR/EIS  
6 studies the effects that the proposed project may have  
7 on the environment. The public is encouraged to  
8 provide comment.

9 Verbal or written comments may be submitted  
10 at the public meeting on September 23, 6:00 to 8:00  
11 p.m. at the Solano County Administration Building, 1st  
12 Floor, 675 Texas Street, Fairfield, California.

13 ---oOo---

14 PUBLIC COMMENTS

15 MR. PERMANN: Walter Permann, P-e-r-m-a-n-n.  
16 Address, 2110 Pebble Drive, Alamo, California.

17 We own the property at 4885 Fulton,  
18 F-u-l-t-o-n, Drive, Fairfield, California.

19 I'm concerned about the traffic flow on  
20 Lopes Road at the intersection of Fulton Drive. The  
21 U-turn proposed, I feel, is not satisfactory for the  
22 existing traffic conditions.

26-1

23 I am a licensed state engineer and would  
24 like to discuss the situation. You can contact me at  
25 area code (925) 687-3500 in my office at Concord,

1 California. Thank you very much.

2 ---o0o---

3 MS. VALINE: My name is Michelle Valine,  
4 V-a-l-i-n-e. I'm owner of the Valine Ranch. I  
5 believe I'm the only person or property owner that is  
6 affected by three, possibly four, of these projects.  
7 I'm a third-generation Suisun Valley farmer,  
8 fourth-generation Californian. There's a lot of  
9 history in Suisun Valley that has my family name  
10 associated with it, and I'm not just referring to the  
11 first time that they took an easement through my  
12 grandfather's property for Highway 40.

13 The topic is not history, it's progress.  
14 And I'm not, as a property owner, trying to stand in  
15 the way of progress; I'm seeking to be treated fairly  
16 and with respect. And in the words of my dear friend  
17 Bernie Moore (phonetic), fair may be subjective,  
18 respect is not. I have yet to be treated with either.

19 At the inception of the Highway 12 connector  
20 project a representative of Solano Transportation  
21 Authority sat in my home and ensured me repeatedly  
22 that the project would have no impact on my quality of  
23 life, my safety, or my personal well-being. Nothing  
24 could be further removed from the truth, nothing could  
25 be more different than the traumatized life I have had

27-1

1 to live the last year and a half.

2 I can provide a complete and detailed list  
3 of all the offenses, but I have had -- since the start  
4 of the project, I have had hay stolen from the  
5 haystack, wood stolen from the wood pile, I've had  
6 buildings graffiti'd, I've had fences graffiti'd, I've  
7 had an endless parade of trespassers, people walking  
8 their dogs, people riding their bikes, riding  
9 motorcycles, dirt bikes, riding their horses who are  
10 just curious as to where the road went. And they all  
11 end up on my property, and when I ask them to leave, I  
12 all too often am verbally accosted for the request.

27-1  
cont.

13 I have had countless engineers, contractors,  
14 subcontractors on my property where they shouldn't be.  
15 And again, I'm treated with disrespect when I ask them  
16 to leave.

17 My well -- the contractor pumped groundwater  
18 to keep their construction site clean or clear of  
19 water. They never bothered to check our wells on the  
20 property. My well was contaminated. I now have  
21 orange toilets, sinks, showers, dishwashers, a washing  
22 machine and a couple loads of orange laundry.

27-2

23 The dust has been horrific. I have had  
24 personal health issues as a result. Most people go  
25 home to find refuge; I have to drive through hell to

27-3



1 get there and then live in the middle of it.

27-3  
cont.

2 What I'm asking is that STA, the board of  
3 supervisors find a way to buy all the property that's  
4 being affected by these projects at one time so that I  
5 can move forward with my life. To live as I have  
6 lived under the conditions I have lived in the last  
7 year is unreasonable to expect of anyone.

8 My whole life I've had my horses there and  
9 my emotional outlet there, a source of income. I have  
10 not had them for a year. It is not any way to live.  
11 I deal with the -- in my job with the expenditure of  
12 federal and state funds and I know that for every rule  
13 there's an exception or there's a clause that allows  
14 for exceptions to be made. I'm asking them to find  
15 the exception and buy the three pieces of property,  
16 not to amputate my ranch, my family history, and my  
17 financial well being a piece at a time and leave me to  
18 bleed to death emotionally and financially.

27-4

19 ---o0o---

20 MS. SAHNI: Pam Sahni, and we own the Super  
21 Serve Chevron. We have a Jack in the Box retail  
22 center with that and an empty parcel right next to our  
23 station. So we were looking at the alternatives, and  
24 both of them would affect us. One would be  
25 devastating; it would completely wipe us out. It

28-1

1 would basically go right through our station, our  
2 empty land, to widen the expansion. The other  
3 alternative, which is a little bit more palatable, but  
4 at this point it looks like they would take some of  
5 our land in conjunction of doing it. These are both  
6 in the phase ones. We definitely -- I just want to  
7 make sure that I'm saying we prefer the right one.

8 We prefer -- we prefer alternative C to  
9 alternative B. We prefer C to B. B would take over  
10 and basically we wouldn't have a business any longer.  
11 We spent a lot of money building and developing the  
12 site.

13 We have been in the Fairfield area since the  
14 '90s. We rebuilt our Chevron site in 2003. We put  
15 about \$5 million into the site. So for us it would be  
16 like a major, mind-blowing kind of a devastating  
17 impact if they were to take over.

18 It's a good business, it's a running  
19 business, it pays its tax and supports the community.  
20 So we definitely want you guys to consider the other  
21 alternative that wouldn't be so devastating to us,  
22 basically. That's what I want to say.

23 ---o0o---

24 (Whereupon, the proceedings adjourned at  
25 8:00 o'clock p.m.)

**Public Meeting Comment 26, Walter Permann, Oral Comment, 09/23/10**

**Response to Comment 26-1**

The comment refers to the access to the properties near the current intersection of Lopes Road and Fulton Road. Under Alternative C and its fundable first phase, the access to this area from Fermi Drive to the south will be eliminated due to the construction of the new I-680 –to – I-80 connector and the connection of the current northern portion of I-680 to Red Top Road, as a local (non-freeway) roadway. However, access to Fulton Drive will still be available via Lopes Road from the north, and via Watt Drive from the south. A second access route from the south is, as the commenter notes, to take the new local roadway to be provided on the current I-680 alignment, and turn left at the intersection with Auto Plaza Court and left again onto Lopes southbound. However, this route may not be as convenient as taking Fermi to Watt northbound, and taking a right on Fulton.

**Public Meeting Comment 27, Michelle Valine, Oral Comment, 09/23/10**

**Response to Comment 27-1**

The commenter discusses issues and effects they have experienced over many years during the planning and construction of various roadway projects in the area and across her property. Many of the issues and effects the commenter describes have been related to the construction of the Suisun Parkway project (previously referred to as the North Connector) which was constructed across a portion of the commenter's property. However the commenter notes issues and effects associated with engineers, contractors, and subcontractors that have visited the commenter's property during the planning of the project. STA apologizes for any inconvenience these activities have caused the commenter. STA's intent is to reduce the effects of its projects on project area residents and property owners to the extent feasible. STA's engineers and contractors are instructed to perform their work in accordance with property owner approval, within designated areas and to always treat property owners with respect. Moving forward, the development of a site control plan would be enforced by the Resident Engineer during construction to avoid any inconveniences to the project area residents and property owners.

**Response to Comment 27-2**

Although the I-80/I-680/SR 12 Interchange Improvement project has not yet been initiated, once it has been, construction site BMPs would be implemented before and during construction activities to reduce the pollutants in the stormwater discharges throughout construction. These include hydraulic mulch, hydroseeding, soil binders, silt fence, sediment traps, sand bags, fiber rolls, and straw bale barriers. The development of a site control plan would be enforced by the Resident Engineer during construction to avoid any inconveniences to the project area residents and property owners. Contractors will further be prohibited from using and polluting water wells.

**Response to Comment 27-3**

Although the I-80/I-680/SR 12 Interchange Improvement project has not yet been initiated, once it does, construction site BMPs to control dust would be applied during construction activities. These may include application of water or dust palliative, application of a soil binder on unpaved roads, implementation of speed limits, sprinkling, temporary paving, and expedited revegetation of disturbed slopes. The development of a site control plan would be enforced by the Resident Engineer during construction to avoid any inconveniences to the project area residents and property owners. The Department will diligently control construction dust to the extent feasible.

**Response to Comment 27-4**

The acquisition of property needed to construct and operate the project would be done in strict compliance with Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. The commenter's property is located along I-80 east of Suisun Creek. While Alternative B and Alternative C affect the commenter's property in the same manner, Alternative B, Phase 1 and Alternative C, Phase 1 do not include improvements in this area and would not require acquisition of the commenter's property. The commenter's property may be affected with construction of the relocated I-80 Westbound (WB) Truck Scales, which is part of both ultimate project alternatives (Alternative B and Alternative C). The timing of improvements beyond Phase 1 has not been determined. Acquisition of the

commenter's property, if necessary, would follow the appropriate procedures under the Uniform Relocation Assistance and Real Property Acquisition Policies Act and all other applicable laws.



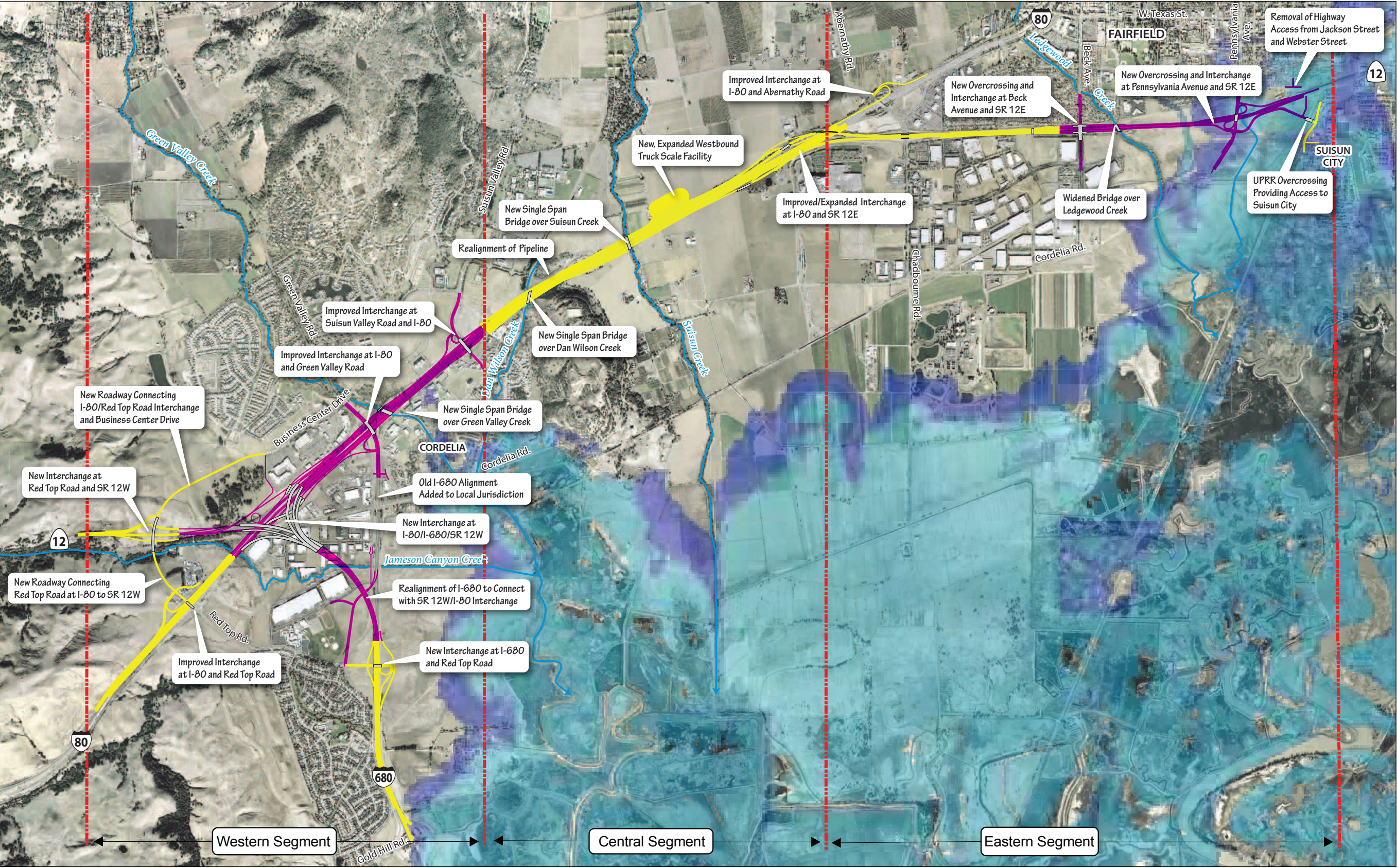
**Public Meeting Comment 28, Pam Sahni, Oral Comment, 09/23/10**

**Response to Comment 28-1**

The commenter notes a preference for Alternative C which the Department has identified as the Preferred Alternative.

Acquisition of the commenter's property, or any part thereof, if necessary, would follow the appropriate procedures under the Uniform Relocation Assistance and Real Property Acquisition Policies Act and all other applicable laws.

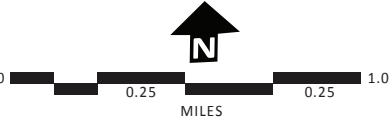




**Legend**

- Proposed New or Expanded/Improved Roads
- Proposed New or Expanded/Improved Bridge/Overcrossing
- Creek
- Features Common to both Alternatives
- 16 inch Sea Level Rise (~mid-century estimate)
- 55 inch Sea Level Rise (~end-of-century estimate)

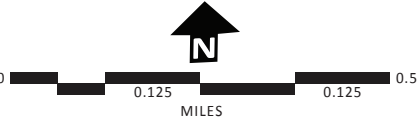
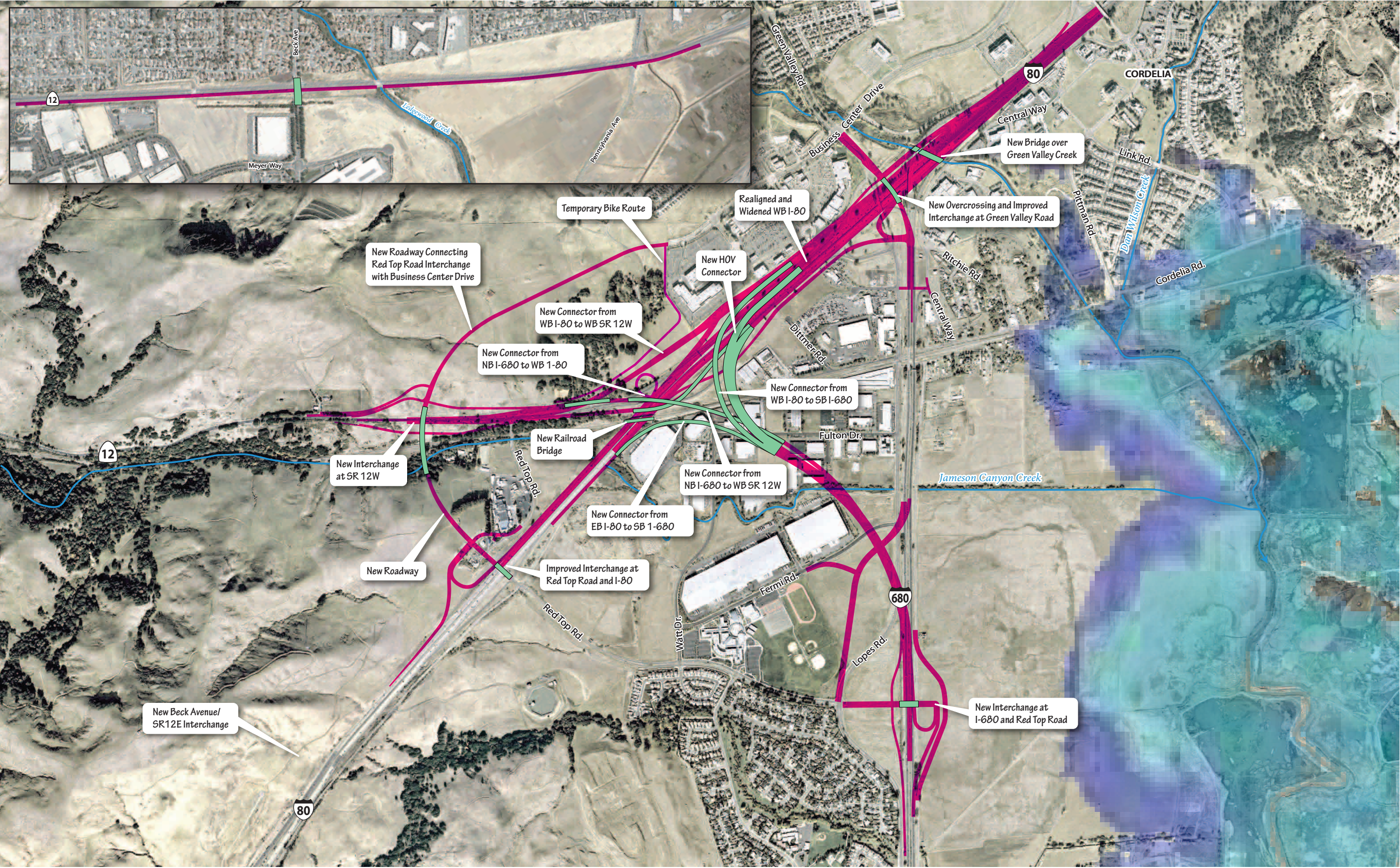
**Disclaimer:** Inundation data used in these maps do not account for existing shoreline protection or wave activity. These maps are for informational purposes only. Users agree to hold harmless and blameless the State of California and its representatives and its agents for any liability associated with the use of the maps. The maps and data shall not be used to assess actual coastal hazards, insurance requirements, or property values or be used in lieu of Flood Insurance Rate Maps issued by the Federal Emergency Management Agency (FEMA).

















## **List of Technical Studies**

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# List of Technical Studies

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The following technical studies have been prepared and are available for review at the Department's District 04 office at 111 Grand Avenue in Oakland, California.

- *I-80/I-680/SR 12 Interchange Project Community Impact Assessment.* (Circlepoint 2009)
- *Final Traffic Operations Report for the I-80/I-680/SR 12 Interchange Project Report.* (Fehr & Peers 2010)
- *I-80/I-680/SR 12 Interchange PR/ED: Existing Conditions VISSIM Model Calibration/Validation Technical Memorandum* (Fehr & Peers October 8, 2003).
- *I-80/I-680/SR 12 Interchange PR/ED: Existing Conditions VISSIM Model Calibration/Validation for the Project Expansion Area Technical Memorandum* (Fehr & Peers February 14, 2005).
- *I-80/I-680/SR 12 Interchange PR/ED: Existing Weekday (Tuesday through Thursday) Traffic Operating Conditions for the Expanded Project Area-Technical Memorandum* (Fehr & Peers February 2005).
- *I-80/I-680/SR 12 Interchange PR/ED: Design Year 2035 Demand Forecasts at Project Gateways Technical Memorandum* (Fehr & Peers July 14, 2006).
- *I-80/I-680/SR 12 Interchange PR/ED: Updated Validation of the VISSIM Traffic Operations Model to 2007-2008 Conditions Technical Memorandum* (Fehr & Peers October 30, 2008).
- *I-80/I-680/SR 12 Interchange Project: Addendum to Traffic Operations Report for Alternative C, Phase 1, Revised for Additional Freeway-to-Freeway Connector Ramps* (Fehr & Peers November 23, 2010).
- *I-80/I-680/SR 12 Interchange Project Visual Impact Assessment.* (Circlepoint 2012)
- *Historic Property Survey Report, I-80/I-680/SR 12 Interchange Project, California Department of Transportation, District 4, Solano County, California.* (ICF Jones & Stokes 2009)
- *Historic Resources Evaluation Report, I-80/I-680/SR 12 Interchange Project, California Department of Transportation, District 4, Solano County, California.* (ICF Jones & Stokes 2009)
- *Archaeological Survey Report, I-80/I-680/SR 12 Interchange Project, California Department of Transportation, District 4, Solano County, California.* (ICF Jones & Stokes 2009)
- *Archaeological Extended Phase I and Geoarchaeological Assessment, I-80/I-680/SR 12 Interchange Project, California Department of Transportation, District 4, Solano County, California.* (ICF Jones & Stokes 2009)
- *I-80/I-680/SR-12 Interchange Project, Location Hydraulic Study & Summary Floodplain Encroachment Report.* (Mark Thomas & Co. and Nolte Associates 2009)

- *I-80/I-680/SR-12 Interchange Project, Stormwater Data Report.* (Mark Thomas & Co. and Nolte Associates 2009)
- *Environmental Geotechnical Memorandum, I-80/I-680/SR 12 Interchange Project, Solano County, California, 04-Sol-12, 680, 80 PM Var.* (Parikh Consultants, Inc. 2009)
- *Addendums to the Environmental Geotechnical Memorandum, I-80/I-680/SR 12 Interchange Project, Solano County, California, 04-Sol-12, 680, 80 PM Var.* (Parikh Consultants, Inc.).
- *I-80/I-680/SR 12 Interchange Project, Paleontological Sensitivity Analysis.* (ICF Jones & Stokes 2009)
- *Initial Site Assessment, I-80, I-680, SR-12 Improvement Project, Solano County* (Geocon Consultants 2008)
- *I-80/I-680/SR 12 Improvement Project, Fairfield and Suisun City, Solano County, California, Initial Site Assessment Update.* (Geocon Consultants 2009)
- *Interstate 80/Interstate 680/State Route 12 Interchange Project Air Quality Technical Report.* (ICF Jones & Stokes 2009)
- *Noise Study Technical Report for the Interstate 80/Interstate 680/State Route 12 Interchange Project.* (ICF International 2010)
- *Interstate 80/Interstate 680/State Route 12 Interchange Natural Environmental Study.* (ICF International 2010)
- *Delineation of Waters of the United States for the Interstate 80/Interstate 680/State Route 12 Interchange Project, Solano County, California.* (ICF Jones & Stokes 2009)
- *Site Assessment for California Red-legged Frog for the Interstate 80/Interstate 680/State Route 12 Interchange Project,* submitted to the U.S. Fish and Wildlife Service (USFWS) on March 3, 2009, for review (ICF International 2009).
- *Fish Passage Assessment for Green Valley, Ledge wood, and Suisun Creeks, Solano County, California.* (ICF International 2010)
- *Interstate 80/Interstate 680/State Route 12 Interchange Project Energy Technical Report* (ICF International 2010)
- *Assessment of Fault Rupture and Analysis of Displacement Hazard, Solano Transportation Authority Interchange Project, Cordelia, California (I80/I680/SR12 Interchange)* (William Lettis & Associates 2009)
- *Interstate 80/Interstate 680/State Route 12 Interchange Project Biological Assessment* (ICF International 2010).
- *Biological Opinion on the Effects of the Proposed Interstate 80/Interstate 680/State Route 12 Interchange Phase 1 Project, Solano County, California* (EA 0A5300) (April 2012)
- *Interstate 80 High-Occupancy Vehicle Lane Project Initial Study/Proposed Mitigated Negative Declaration* (2007).