

ATTACHMENT D

Preliminary Environmental Analysis Report (PEAR)



PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District: 4	County: Solano	Route: 80	PM: 11.2/29.3	EA: 4G080K
Project Title: Interstate 80 (I-80) Express Lanes Project				
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2. Project Description

The Solano Transportation Authority (STA) proposes to construct westbound and eastbound express lanes along approximately 18 miles of the existing Interstate 80 (I-80) corridor in Solano County. **Attachments A and B**, of the PSR/PDS, show the general location of the environmental study area extending along I-80 from postmile 11.2 to 29.3 and passing through the cities of Fairfield and Vacaville. The I-80 Express Lanes Project (project) consists of two components that will be cleared through a single environmental document which would allow for phased implementation.

The first component, the West Segment, runs along I-80 from the Red Top Road interchange (postmile 11.4) to the Air Base Parkway interchange (postmile 19.2), including the area around the I-80/I-680 interchange. In the West Segment, existing HOV lanes in both the eastbound and westbound directions would be restriped and repurposed as express lanes.

The second component, the East Segment, would construct new HOV/express lanes in both the eastbound and westbound directions of I-80 from the Air Base Parkway interchange through the I-80/Interstate 505 (I-505) Interchange (postmile 28.4).

Purpose and Need

I-80 is an inter-regional east-west corridor that connects the San Francisco and Sacramento metropolitan areas, passing through the counties of Alameda, Contra Costa, Solano, and Yolo. The portion of I-80 through the cities of Fairfield and Vacaville is the most heavily-traveled segment of the I-80 corridor within Solano County as it is utilized by commuters, public transit services, and for interstate and interregional goods movement. Such heavy traffic through the corridor results in frequent significant congestion in the general purpose lanes, particularly acute during the peak travel hours.

In an August 2011 Project Study Report (PSR), Caltrans and the Metropolitan Transportation Commission (MTC) identified a 533-mile “backbone” system of express lanes intended to enhance mobility and afford greater user flexibility of the transportation

network. The PSR indicated that express lanes (in the form of either repurposed currently existing HOV lanes or newly constructed travel lanes) were an appropriate tool to optimize and increase the capacity of the existing regional freeway network to reduce delay while also meeting current and future traffic demand needs.

The PSR specifically included the I-80 corridor in Solano County, including the above-described West and East Segments from Fairfield to Vacaville being analyzed in this PEAR. Accordingly, this PEAR incorporates the following purpose and need as identified in the PSR for the regional backbone network:

Need

- Congestion currently exists in the general purpose lanes during peak periods on the I-80 corridor in Solano County and this level of congestion will continue to worsen as traffic demand increases.
- The existing HOV lane system on the I-80 corridor is characterized by gaps, limiting travel time savings and trip reliability for cars and transit vehicles.
- Available unused capacity in the existing HOV lane system needs to be utilized to enhance transportation system efficiency.
- There is limited funding available to close gaps in the existing HOV lane system without utilizing alternative financial mechanisms such as express lane tolling.

Purpose

- Optimize capacity in the existing I-80 corridor to better meet current and future traffic demands.
- Close the gaps within the existing HOV lanes on I-80 increasing travel time savings and reliability for all users as well as HOVs and transit.
- Maximize the efficiency of freeway facilities by better utilizing available unused capacity in the existing HOV lanes.
- Provide a funding mechanism through express lanes¹ to accelerate implementation of the regional network of HOV and express lanes.

¹The State has authorized the implementation of express lanes as a way to implement the regional carpool lane system faster than traditional state and local funding sources.

Alternatives

This PEAR considers three alternatives: a no-build alternative along with two action alternatives.

No-Build Alternative

Under the No-Build Alternative, no express lanes would be constructed along I-80 from the Red Top Road Interchange to the I-80/I-505 Interchange. The existing HOV lanes along I-80 from Red Top Road to Air Base Parkway would remain as they currently exist. No widening of the I-80 mainline east of Air Base Parkway would occur. Other planned and approved traffic improvements along local routes may be implemented by local agencies or under other projects. The No-Build Alternative is considered the

environmental baseline against which potential environmental effects of the action alternatives described below would be considered.

Alternative (ALT A)

Build Alternative A includes converting the existing HOV lanes in the West Segment and widening I-80 into the existing median in the East Segment.

Converting the HOV lanes in the West Segment to express lanes would involve restriping, installing signage and tolling equipment. However existing non-standard design features would not be corrected under ALT A. In general, under ALT A, the conversion of the existing HOV lanes in the West Segment would not require additional lands outside existing State rights-of-way. However, sliver widening will be required to accommodate one new CHP observation area.

In the East Segment, I-80 would be widened to accommodate one new lane in each direction within the freeway median while maintaining the current number of general purpose lanes. The new median lane would be stripped for HOV and Express use, and appropriate signage and tolling equipment would be installed. Under ALT A, the inside shoulder (median shoulder) would have an average width of 5 feet, which is below the Caltrans standard requirement of 10 feet. Outside shoulders would remain as is and generally meet the Caltrans standard of 10-feet. In general, under ALT A, the widening of I-80 in the East Segment would not require additional lands outside existing State rights-of-way but may require utility easements and temporary construction easements. However, sliver widening would be required to accommodate CHP observation areas at four locations.

Alternative (ALT B)

For the West Segment, Alternative B (ALT B) entails conversion of the existing HOV lanes to express lanes, which would involve restriping, installing signage and tolling equipment, and correcting all non-standard design features that currently exist within this segment. This would require widening of the existing pavement and would require additional lands outside existing State rights-of way.

In the East Segment, I-80 would be widened to accommodate one new lane in each direction within the freeway median while maintaining the current number of general purpose lanes and shoulder widths. The new median lane would be stripped for HOV or Express use, and appropriate signage and tolling equipment would be installed to allow for tolling and express lane use as appropriate. The widening of I-80 would require additional lands for State rights-of-way, utility easements, and temporary construction easements.

3. Anticipated Environmental Approval

CEQA		NEPA	
Environmental Determination			
Statutory Exemption	<input type="checkbox"/>	Categorical Exclusion	<input type="checkbox"/>
Categorical Exemption	<input type="checkbox"/>		
Environmental Document			
Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND	<input type="checkbox"/>	Routine Environmental Assessment with proposed Finding of No Significant Impact	<input type="checkbox"/>
		Complex Environmental Assessment with proposed Finding of No Significant Impact	<input type="checkbox"/>
Environmental Impact Report	<input checked="" type="checkbox"/>	Environmental Impact Statement	<input checked="" type="checkbox"/>
CEQA Lead Agency (if determined):		California Department of Transportation, District 4	
Estimated length of time (months) to obtain environmental approval:		24-42 months	
Estimated person hours to complete identified tasks:		[Caltrans to provide hours per WBS spreadsheet]	

4. Special Environmental Considerations

The two action alternatives have substantially different potential to impact sensitive environmental resources.

ALT A would develop express lanes through the conversion of the existing freeway median. While ALT A would require sliver widenings in various locations, ALT A would generally confine most physical impacts to the existing I-80 corridor and existing State right-of-way, avoiding the need for any relocations. The median is generally not known to contain any substantial quantities of significant biological or cultural resources. Any such resources in the median are likely to be marginal/minimal in quality and quantity due to the long-standing operation of the freeway.

In contrast, ALT B will require substantial land acquisitions and relocations, particularly in the East Segment. Accordingly, ALT B is likely to significantly affect biological and cultural resources in proximity to the I-80 corridor. Such resources include special status wildlife species and associated habitat, wetlands and waters of the U.S., and recorded/unrecorded Native American and archaeological resources. As such, ALT B would likely entail complex federal consultation and certification processes such as Sections 401 and 404 of the Clean Water Act (CWA), Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act (16 U.S.C. 470) and Section 4(f) of the Department of Transportation Act (49 U.S.C. 303), all contingent on

the findings of supplemental jurisdictional delineation reports, a Natural Environmental Study, and archaeological technical reports. The time required for legal sufficiency review of these processes could impact the project schedule should the Section 404, Section 401, or Section 7 processes and/or an extensive Section 4(f) evaluation be required.

Sliver widenings associated with ALT A could require consultation and certification, but these are expected to be minor relative to the activities associated with ALT B. Accordingly, consultation processes related to ALT A would likely be much less complex and thus require less time to complete.

5. Anticipated Environmental Commitments

The appropriate level of environmental documentation to be prepared during the Project Approval and Environmental Document (PA&ED) phase of project development would be an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) to satisfy both the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements for ALT B. Preparation of the EIR/EIS, including technical studies, is anticipated to take 24 to 42 months, after receiving information necessary to begin the environmental analysis. This timeline includes time for substantive review by the environmental division staff within the Department, but does not include time for permitting by federal or state resource agencies.

Appendix D, of this attachment, contains estimated costs of environmental commitments identified in this Preliminary Environmental Analysis Report (PEAR) for each action alternative.

6. Permits and Approvals

Water Quality: The action alternatives are likely to utilize the California Department of Transportation's (Department) NPDES permit during construction. The NPDES permit includes measures that would be taken by the project to reduce or avoid runoff that would affect local storm water quality. Additionally, the project would be required to file a Notice of Intent (NOI) to be covered under the State NPDES General Construction Permit for discharges of storm water associated with construction activity.

Biological Resources: The project corridor spans urban, suburban, and rural agricultural environments. Significant biological resources are generally concentrated in the riparian areas around the creeks crossed by I-80 and proximate to agricultural buffer areas. Such resources are anticipated to be somewhat more abundant in the East Segment, which has more creek crossings and greater proximity to agricultural buffer areas than the relatively developed West Segment.

Because ALT B would require substantial land acquisitions in the more biologically sensitive East Segment, it could result in greater impacts to waters of the U.S. and special- status species/habitat areas than ALT A. ALT A would have lesser effects to biological resources as the habitat value of regularly maintained lands within the existing I-80 corridor is generally considered low to negligible. Biological resources impacts of ALT A would thus generally be limited to riparian corridors that cross the corridor due to bridge widening or culvert extensions.

A Natural Environment Study (NES) would be required to determine the specific sensitive species in the project area. Depending on the findings of the NES, Section 7 compliance and approvals from the U.S. Fish and Wildlife Service (USFWS) may be required if such species are affected by an action alternative. As noted above, ALT B is expected to result in more adverse effects than ALT A owing to the substantial difference in required land acquisition.

Both ALT A and ALT B are expected to result in limited impacts to waters of the U.S. where it is necessary to widen some of the existing I-80 bridge structures that cross creeks. Both action alternatives would require a delineation of jurisdictional wetlands and waters of the U.S. to determine the presence and location of jurisdictional resources in the areas potentially affected by the action alternatives. Impacts to waters of the U.S. and wetlands as a result of the project, including any temporary impacts during construction, would need to be quantified. The greater widening associated with ALT B would likely result in more substantial implications to wetlands and waters of the U.S. than ALT A. If impacts to wetlands or waters of the U.S. are identified, coordination for CWA Section 401 Certification and CWA Section 404 Permit would be required.¹

A Lake or Streambed Alteration Agreement (SAA), in compliance with Section 1602 of the California Fish and Game Code, is required for project that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. If the project results in any of the above-mentioned activities, coordination with the California Department of Fish and Game (CDFG) for a Section 1602 SAA would be required.

Appendix D, of this attachment, provides a detailed environmental commitments cost estimate for each action alternative.

7. Level of Effort: Risks and Assumptions

Risk management is the systematic process of identifying and planning for issues that, were they to occur, could have a positive or negative effect on the project objectives, including the timeline and/or budget for project implementation. Initial phases of project development include developing and regularly reviewing a risk management matrix prepared for the project. This PEAR is designed to provide an evaluation of the level of technical study and environmental documentation that would be required for the project.

The discussion of PEAR Technical Summaries below is based on windshield surveys of the project area, existing public data, and technical reports prepared for other projects in the project area to evaluate the potential environmental risks associated with the action alternatives. Based on this information, the process of attaining full project approval would take approximately 24 to 42 months to complete.

Appendix C, of this attachment, provides a sample schedule of the environmental review process for the project.

¹ Under federal CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification (Certification) that the proposed activity will comply with state water quality standards. Most Certifications are issued in connection with U.S. Army Corps of Engineers CWA Section 404 permits for dredge and fill discharges.

Assumptions

The following assumptions were made when evaluating the project:

- The community would be generally supportive of the need for the project.
- Hazardous materials could be encountered during Phase I soils sampling and surveying of the bridge structures.
- Special-status species (or associated habitat) could be affected by the project.
- The project could result in impacts to wetlands and waters of the U.S. due to the proximity of the waterways creeks crossed by I-80.
- The project could result in significant effects to recreational and/or cultural resources, primarily the Peña Adobe (listed on the National Register of Historic Places), in Vacaville. The project could entail consultation under Section 106 of the NHPA and require a detailed Section 4(f) evaluation.

Risks

A risk is an uncertain event or condition that, if it occurs, has a positive or negative impact on at least one project objective: scope, cost, or schedule. **Table 1** defines the potential impact of a risk on the project objectives.

Table 1: Evaluation the Impact of a Risk on Project Objectives

Impact	Low	Moderate	High
Objectives			
Time	Delivery Plan milestone delay within quarter	Delivery Plan milestone delay of one quarter	Delivery Plan milestone delay of more than 1 quarter
Cost	<5% Cost Increase	5-10% Cost Increase	>20% Cost Increase
Scope	Changes in project limits or features with <5% cost increase	Changes in project limits or features with 5-10% cost increase	Sponsor does not agree that scope meets the purpose and need

Based on the project’s assumptions, the following risks were identified:

- If the community opposes the project, additional time for public involvement and outreach may be needed, which would delay the project schedule. This risk is low and would have a moderate impact on the schedule.
- If unrecorded Native American cultural resources are discovered in the study area, consultation and coordination with Native American tribal representatives during preparation of the CEQA/NEPA document, and monitoring for Native American artifacts during construction, may be required. This risk is unlikely and would have a high impact on schedule and cost.

- If unrecorded paleontological resources are discovered in the study area, construction monitoring by a qualified paleontologist may be required, and a curation program prepared for the project to create protocols for how to protect any resources discovered during construction. This risk is unlikely and would have a high impact on schedule and cost.
- If hazardous materials are encountered during Phase I soil sampling and bridge surveying in such high concentrations such that extensive remediation and re-testing would be required before project approvals could be obtained, the additional remediation work would delay the project schedule. The probability of this occurrence is high and the impact on schedule is high.
- If wetlands and/or waters of the U.S. are identified within the project study area, an avoidance alternative analysis for wetland impacts would need to be prepared in accordance with the U.S. Army Corps of Engineers. The probability of this occurrence is high and the impact on the project schedule is high.
- The precise effects to recreational and cultural resources cannot be ascertained without detailed design information. The project would appear to encroach into portions of Lagoon Valley Regional Park, which includes the Peña Adobe, the oldest building in Solano County. Consultation under Section 106 of the NHPA could require extensive coordination with the State Historic Preservation Officer (SHPO). In addition, certain cultural properties are also considered Section 4(f) resources. The probability of these occurrences is high and the impact on the project schedule is high.

It is not known at this time if all potential impacts, particularly impacts to the human environment, could be mitigated to a less-than-significant level. If impacts are determined to be significant even after application of mitigation, the level of environmental document may need to be elevated. This determination should be made during the PA&ED phase once technical studies have been completed.

8. PEAR Technical Summaries

8.1 Land Use:

The project would occur within the existing I-80 freeway corridor, a long-established freeway that pre-dates much of the adjacent commercial and residential development. ALT A would require sliver widenings with ALT B requiring substantial land acquisitions. As previously noted and discussed further below, ALT B could thus encroach upon park resources, primarily the Peña Adobe Park and Lagoon Valley Regional Park in Vacaville. Such encroachment is expected to require more extensive consideration of potential effects under Section 4(f). The potential for significant Land Use and other related impacts would need to be investigated more fully in a Community Impact Assessment (CIA).

Although ALT A is expected to require sliver widenings, such acquisitions are not expected to extend substantially beyond the existing freeway corridor where significant conflicts with existing or planned land uses might occur. For ALT A, a qualitative discussion would suffice for both CEQA and NEPA purposes.

8.2 Growth:

The growth inducement discussion is required under CEQA, which states that growth must not be assumed in any area to be necessarily detrimental, beneficial, or of no significance to the environment. In general, a project could be considered growth inducing if it directly or indirectly affects the ability of agencies to provide needed public service, or if it can be demonstrated that the potential growth significantly affects the environment in some other way. CEQA does not require separate mitigation for growth inducement as it is assumed that these impacts are already captured in the analysis of environmental impacts.

The action alternatives would optimize and expand the capacity of the I-80 freeway between Air Base Parkway and I-505. A brief assessment in a Community Impact Assessment (CIA) will be required to determine whether this growth inducement would merely facilitate planned growth or result in the potential for unplanned growth.

8.3 Farmlands/Timberlands:

There are several areas of farmlands in the study area, particularly in the span between the cities of Fairfield and Vacaville. Farmland impacts are likely to occur under ALT B, particularly given the need for substantial land acquisition in the East Segment. Particular attention should be made to impacts to prime farmlands and lands under conservation easements.

Farmland impacts are less likely under ALT A; sliver widenings are not expected to result in significant effects.

All effects to farmlands can be addressed in the CIA.

No timberlands are known to existing in the project study area, so no further timberland evaluation would be required.

8.4 Community Impacts:

The existing I-80 corridor between Fairfield and Vacaville, along with immediately adjacent lands, comprise the study area. The Fairfield and Vacaville portions of the study area are generally urbanized and have developed around the long-existing I-80 freeway. The freeway has guided development in the study area.

ALT A would minimally expand the width of the I-80 corridor and would thus be likely to result in few or no direct effects on community character or cohesion. Further, the sliver widenings needed for ALT A would entail no permanent relocations, merely temporary construction easements (TCEs). Effects to public utilities, facilities, and emergency services would thus be expected to be minimal.

In contrast, ALT B would require substantial expansion of the freeway corridor with attendant significant potential to adversely affect community character. Moreover, ALT B could entail a relatively large number of temporary or permanent relocations. Any public utilities or facilities located immediately adjacent to the freeway (such as pipelines, bike routes, or parklands) would thus be more substantially impacted under ALT B. Emergency service provision could also be affected.

Although project construction would be temporary, it would take place over a period of years and could be disruptive to the local area. Lane closures, detours, and other construction over extended periods could impact local residents and businesses and result in negative economic impacts as a result of lost business and/or increase commuted times. Either action alternative would require preparation of a Community Impact Assessment (CIA) to clarify the differing levels of effects associated with ALT A and ALT B.

The project study area includes communities with substantial populations of minority and low income individuals based on data from the 2010 U.S. Census. Further analysis will be required to determine if any of the affected census tracts qualify as environmental justice communities. In particular, the prospect of adding toll lanes raises questions of environmental justice with regard to accessibility for lower-income people. Accordingly, both action alternatives would require further analysis to determine if the proposed action could disproportionately affect any qualifying environmental justice community.

8.5 Visual/Aesthetics:

None of the project study area is located within a designated state scenic highway. However, the action alternatives would traverse several identified scenic areas in both Fairfield and Vacaville. These include but are not limited to the Tri-County Open Space Scenic Vista Area near the west end of the study area, the agricultural “buffer” lands between Fairfield and Vacaville, and views of scenic hillsides, productive agricultural lands, and oak woodland areas, primarily in the non-urbanized portions of the study area. The general plans of both Fairfield and Vacaville and Solano County each identify specific scenic resources that the study area traverses.

The action alternatives would have somewhat similar visual effects. Neither alternative would significantly alter distant views for drivers or people nearby because they are intended to merely modify and/or slightly widen an existing freeway corridor. Both would require the installation of signage/tolling equipment within the already disturbed freeway corridor. The precise locations of such equipment will need to be assessed for the potential to block views and alter the visual character of the corridor experienced by motorists. In addition, both ALT A and ALT B are anticipated to require full or partial removal of the oleander bushes that line much of the median within the East Segment, notably altering the visual character experienced by drivers.

ALT A would not require any new overpasses or other overhead structures, but ALT B would require new overcrossings in several locations and would also require reconstruction of several existing overcrossings. These could represent one or more significant new visual impediments, contingent on precise location relative to visual resources. Further, ALT B would require some new or relocated soundwalls to mitigate identified noise impacts, but such structures are unlikely to substantially alter visual conditions for various viewer groups. To fully assess impacts to all potentially affected viewer groups (drivers, users of nearby park and open space resources, and people living near the study area), a Visual Impact Assessment is recommended.

8.6 Cultural Resources:

In fulfillment of requirements under Section 106 of the National Historic Preservation Act (NHPA), to assess the potential for either action alternative to adversely affect cultural resource, an Area of Potential Effect (APE) should be identified encompassing both archaeological and historic architectural resources.

ALT A would be developed within or immediately adjacent to the existing freeway corridor. ALT A would thus have low potential for encountering significant archaeological resources during construction. Any archaeological resources in this area are likely to have been damaged during construction and maintenance of the freeway, likely adversely affecting the integrity of such resources. Similarly, the sliver widenings required for ALT A are unlikely to affect any historic resources in proximity to the freeway corridor. Accordingly, the ASR for ALT A is likely to be relatively brief. There may be no properties to investigate in an HRER. Therefore, ALT A is unlikely to entail an extensive consultation process under Section 106.

ALT B would require land acquisitions outside the freeway corridor, where there a greater potential for encountering archaeological resources is expected. The integrity of such resources is likely to increase at locations further from the freeway corridor. A significant historic architectural resource, the Peña Adobe, is located approximately 200 feet to the east of the existing I-80 corridor. Peña Adobe is the oldest building remaining in Solano County and is listed on the National Register of Historic Resources. It is located within the City of Vacaville's Peña Adobe Park. The park includes other structures and landscape features associated with Peña Adobe. While ALT B would not need to fully acquire, demolish, or relocate this resource, it would require some of the associated property. Such acquisition could result in direct impacts to features and structures near Peña Adobe, in turn possibly resulting in indirect effects to the integrity of the building. The analysis will need to determine whether such effects could potentially affect Peña Adobe's eligibility for listing on the National Register.

Consultation on this matter with appropriate stakeholders, such as the California SHPO, may be appropriate given ALT B's potential effects to Peña Adobe. A literature review, field survey, and consultation with Native Americans would be appropriate next steps to address both potential archaeological and historic architectural resources. An Archaeological Survey Report (ASR) should be prepared, as well as a Historic Resources Evaluation Report (HRER). These should be summarized in a comprehensive Historic Property Survey Report (HSPR), with appropriate findings of effects. The HSPR should be reviewed with appropriate stakeholders, including but not limited to the California SHPO, whose assent may be required in determining findings of effect to Peña Adobe.

8.7 Hydrology and Floodplain:

The action alternatives would follow an 18-mile freeway corridor that crosses several creeks in Fairfield and Vacaville, as well as the Putah South Canal. Several creeks are noted as 100-year flood zones per Federal Emergency Management Agency (FEMA)

flood maps.² These maps identified the floodplains at the following crossings to be within Zone A: Union Avenue Creek, Laurel Creek, Lagoon Drain, Laguna Creek, Alamo Creek, Ulatis Creek and Pine Tree Creek. Zone A represents areas that are within the 100-year floodplain that are mapped by approximate method. Except for Laurel Creek, the FEMA *Flood Insurance Study* provides detailed 100-year flow and water surface elevation information for the floodplains.

A Location Hydraulic Study (LHS) should be prepared for the project. A LHS is a preliminary study of base floodplain encroachments and must be performed by a registered engineer with hydraulic expertise. Detailed studies to determine impacts to the floodplain base flows and water surface elevations will be presented in the PS&E *Bridge Design Hydraulic Study* for the existing creek crossings along the corridor.

Based on the findings of these efforts, the environmental document will incorporate appropriate mitigation measures related to construction in and near the floodplain.

8.8 Water Quality and Storm Water Runoff:

The project must comply with the Caltrans Statewide NPDES Permit (No. 99-06-DWQ), and the temporary and permanent best management practices that are to comply with the Permit will be presented in the Project Storm Water Data Report during the PA/ED phase.

Both action alternatives would result in a soil disturbance of one acre or more, so the Project must comply with the Statewide Construction General Permit (No. 2009-0009-DWQ); the Caltrans NPDES Permit references the Construction General Permit for regulation of stormwater discharges from all Caltrans construction projects. Both action alternatives would also result in the addition of one acre or more of impervious area and would be required to incorporate measures to provide permanent stormwater treatment and mitigate for hydromodification impacts to receiving water bodies. The stormwater treatment measures would be required to be designed in accordance with the Caltrans Project Planning and Design Guide, and the hydromodification analysis and mitigation measures would need to be in compliance with the San Francisco Bay Regional Water Quality Control Board Municipal NPDES Permit (No. R2-2009-0074).

As a matter of law, implementation of either action alternative would require the incorporation of design Best Management Practices (BMPs), as well as BMPs to prevent effects to water quality during construction (such as excessive erosion or sedimentation). These BMPs are outlined in both the Department's Storm Water Management Plan (SWMP) and would be incorporated into the SWPPP. Incorporation of the measures outlined in the SWPPP would ensure that neither action alternative would adversely affect water quality in local waterways or groundwater quality.

Refer to **Section 8.15, Biological Resources**, for a discussion of potential effects to wetlands or waters of the U.S. If wetlands or waters of the U.S. are identified in the project study area, Clean Water Act (CWA) Section 404 permits and Section 401 Certification would be required.

² Federal Emergency Management Agency. FEMA issued Flood Maps 06095C0276E and 06095C0277E, 06095C0257E 06095C0259E; 2009; City of Fairfield Public Works Department website: <http://www.fairfield.ca.gov/gov/depts/pw/flood/default.asp>, Accessed on October 13, 2011.

8.9 Geology, Soils, Seismic and Topography:

A preliminary geotechnical report should be prepared to evaluate the potential for the action alternatives to result in impacts related to existing soils and/or seismic conditions.

Prior to final design, field explorations will be required to fully document subsoil and groundwater conditions and evaluate corrosion potential to develop specific recommendations for foundation construction, embankment construction, and retaining wall construction. Detailed study should also be conducted to analyze the slope stability of specific slopes that would be potentially affected by the action alternatives and should consider slope maintenance and protection. The findings of these field explorations and detail study will be incorporated into the environmental document.

The project study area crosses two Alquist-Priolo fault zones in Fairfield and a concealed portion of the Lagoon Valley Fault crosses the study area in Vacaville. The action alternatives should be designed in accordance with the Department's 2007 Deterministic PGA Map and the ARS Online (Version 1.0.4). The possibility of the project study area to experience ground shaking is moderate to high and the impact due to liquefaction is considered moderate to high, based on information published in the Fairfield and Vacaville general plans. During the Plans, Specifications, and Estimates (PS&E) phase of the project, additional data should be collected to confirm site conditions and as the basis for appropriate mitigation measures.

8.10 Paleontology:

Several records of known fossil localities exist in close proximity to the project study area.³ Numerous findings of microfossils have been recorded at Lower Cement Hill and along Ulatis Creek, the latter of which crosses the study area. Accordingly, a site-specific Paleontological Inventory Report (PIR) should be prepared to determine if any known paleontological resources exist in the study area. The findings of the PIR will be incorporated into the environmental document.

Should the PIR determine that the action alternatives could impact known paleontological resources or paleontological resources with a high sensitivity status, a qualified paleontologist will need to prepare a Paleontological Evaluation Report (PER) to determine: (1) the Department's legal responsibilities; (2) the necessity for involving other agencies and/or stakeholders; (3) whether the resource can be avoided; and (4) the significance of the resource. The PER is typically completed as part of the draft environmental document/determination and draft project report.

8.11 Hazardous Waste/Materials:

As both action alternatives would be constructed in close proximity to existing freeway lanes, an investigation for heavy metals/aerially deposited lead along with an Initial Site Assessment (ISA) are recommended. Further, Preliminary Site Investigations (PSIs) would be needed for all proposed acquisition/widening areas. While both action alternatives would require at least sliver widenings to accommodate CHP observation areas, ALT B would require substantially more additional right-of-way in the

³ On-line fossil locality search, University of California Museum of Paleontology, (October 12, 2011). Accessed at <http://ucmpdb.berkeley.edu/loc.shtml>.

8.12 Air Quality:

The action alternatives are intended to reduce existing and future traffic congestion, which in turn should result in improved regional air quality. However, the action alternatives could cause minor shifts in traffic patterns which could result in highly localized air quality impacts. At present, a detailed traffic operations report has not been prepared for the action alternatives.

Given the potential for the action alternatives to result in modifications in traffic operations, an Air Quality Study should be prepared to evaluate potential air quality impacts both in the near term and over the project planning horizon. As part of this analysis, the study should include a mobile source air toxics (MSAT) screening evaluation as well as a carbon monoxide hotspot analysis. The findings of the Air Quality Study will be incorporated into the environmental document.

The project must conform to the Bay Area Air Quality Management District (BAAQMD) 2010 Clean Air Plan (CAP). The CAP is based on regional population, housing, and employment projections through 2020 compiled by the Association of Bay Area Governments (ABAG). A project is considered to conflict with or obstruct implementation of a regional air quality plan if it would be inconsistent with the regional growth assumptions, in terms of population, employment, or regional growth in Vehicle Miles Travelled (VMT). As such, the Air Quality Study should provide extensive modeling and documentation of the project's conformity with ABAG's projections. As the action alternatives would potentially increase the capacity of I-80, further analysis is needed to determine the potential for growth-inducing effects, a substantial change in VMT, and in turn, consistency with the CAP.

Because the action alternatives would affect highway operations, regional interagency consultation to discuss and gain consensus on conformity issues would be required, as defined by the Interagency Consultation requirements in the U.S. EPA Conformity Rule at 40 CFR 93.105. The project would be required to complete FHWA's Transportation Conformity and NEPA Assumption Questions and Answers forms, as well as the Conformity Analysis Documentation checklist.

Additionally, the San Francisco Bay Area is designated as nonattainment for the 24-hour PM_{2.5} standard.⁴ If the action alternatives are considered to require further evaluation of PM_{2.5}, a PM_{2.5} hot-spot evaluation should be included as part of the Air Quality Study to ensure conformity with the Clean Air Act.

Construction of either action alternative would require earth movement, pavement removal, installation of new pavement, and other associated activities. The BAAQMD CEQA Guidelines, as modified in 2010, require quantification of construction period emissions for criteria pollutants, including that produced by construction equipment and fugitive dust. Mitigation, including but not limited to standard Best Management Practices, is likely to be required to reduce levels of emissions below BAAQMD's operative thresholds.

⁴ Beginning December 14, 2010, certain projects are required to engage in interagency consultation and complete PM_{2.5} hot-spot analysis as part of the project level-conformity determination process.

8.13 Noise and Vibration:

A preliminary field review of the project study area by a qualified acoustician indicated that the action alternatives could require the construction and/or replacement of noise barriers in several locations.⁵ This field review was based in part on information developed as part of the I-80 HOV Lane Project.

As the action alternatives could widen the existing I-80 corridor in several places, particularly along the eastern segment that does not currently have HOV lanes, there is the potential for a change in existing noise patterns that could adversely affect both existing and new sensitive receptors in the vicinity of the project study area. A detailed noise analysis should be conducted to determine the full extent of noise impacts associated with the action alternatives, as well as recommended mitigation measures. Mitigation measures should be considered in terms of both feasibility and reasonableness, weighing cost to construct against the number of beneficiaries.

Because the implementation of the action alternatives is likely to require substantial construction activity over a period of many months and would be in very close proximity to noise-sensitive land uses, construction could result in significant noise and vibration impacts. The Noise Study Report should include a construction noise assessment that evaluates potential noise and vibration effects and, if warranted, proposes appropriate mitigation measures. The findings of the Noise Study Report will be incorporated into the environmental document.

8.14 Energy and Climate Change:

At present, the I-80 corridor experiences significant congestion; such congestion can in turn increase emissions of carbon dioxide, a key greenhouse gas. To the extent a project relieves congestion by enhancing operations and improving travel times in high congestion travel corridors, greenhouse gas emissions may be reduced. As the purpose of the action alternatives is to relieve existing and projected future traffic congestion, the action alternatives could result in CO₂ emission reductions. An appropriate greenhouse gas emissions analysis should be prepared as part of the environmental document. The environmental document will include a qualitative discussion regarding the operation of the project relative to greenhouse gas emission and climate change effects. The analysis will be prepared in accordance with the Department's most current guidance at the time the environmental document is prepared. The environmental document will include the Department's boilerplate language regarding greenhouse gas emissions and will follow the defined methodology from the Department's Standard Environmental Reference materials.

8.15 Biological Environment:

The project corridor spans urban, suburban, and rural agricultural environments. Significant biological resources are generally concentrated in the riparian areas around the creeks crossed by I-80 and proximate to agricultural buffer areas. Such resources are anticipated to be somewhat more abundant in the East Segment, which has more creek crossings and greater proximity to agricultural buffer areas than the relatively developed West Segment.

⁵ Illingworth and Rodkin, Inc., April 4, 2011.

Because ALT B would require substantial land acquisitions in the more biologically sensitive East Segment, it could result in greater impacts to waters of the US and special status species/habitat areas than ALT A. ALT A would have lesser effects to biological resources as the habitat value of regularly maintained lands within the existing I-80 corridor is generally considered low to negligible. Biological resources impacts of ALT A would thus generally be limited to riparian corridors that cross the corridor due to bridge widening or culvert extensions.

Special-Status Plant and Wildlife Species

For both action alternatives, some widening of existing bridge structures would be anticipated in areas where sensitive wildlife and plant species may be present. A Natural Environment Study (NES) would be required to determine the specific sensitive species in the project area. Depending on the findings of the NES, Section 7 compliance and development of a Habitat Mitigation and Monitoring Plan (HMMP) may be required. If the NES determines that the action alternatives would affect both a state and federal listed species, compliance with the Federal Endangered Species Act (FESA) will satisfy the California Endangered Species Act (CESA) if the Department of Fish and Game (CDFG) determines that federal compliance is “consistent” with CESA under Fish & Game Code Section 2080.1. If the action alternatives would result in a “take” of a state-only listed species, the Department must apply for a take permit under Section 2081 (b).

Wetlands

The project would also result in limited impacts to waters of the U.S. where it is necessary to widen some of the existing I-80 bridge structures that cross creeks for both action alternatives. A delineation of jurisdictional wetlands and waters of the U.S. should be prepared to determine the presence and location of jurisdictional resources in the areas potentially affected by the action alternatives. The jurisdictional delineations should be completed in accordance with Section 404 and Section 401 of the federal Clean Water Act (CWA), which regulate the discharge of dredged or fill material into waters of the US, including wetlands. Executive Order 11990 requires an avoidance alternative analysis for wetland impacts unless there is no practicable alternative available. Impacts to waters of the U.S. and wetlands as a result of the action alternatives, including any temporary impacts during construction, would need to be quantified. If impacts to wetlands or waters of the U.S. are identified, coordination for CWA Section 401 Certification and CWA Section 404 Permit would be required.⁶

A Lake or Streambed Alteration Agreement (SAA), in compliance with Section 1602 of the California Fish and Game Code, is required for projects that will substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed. If the action alternatives result in any of the above-mentioned activities, coordination with the California Department of Fish and Game (CDFG) for a Section 1602 SAA would be required.

⁶ Under federal CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain State Water Quality Certification (Certification) that the proposed activity will comply with state water quality standards. Most Certifications are issued in connection with U.S. Army Corps of Engineers CWA Section 404 permits for dredge and fill discharges.

8.16 Cumulative Impacts:

Cumulative impacts occur as a result of the combined actions of multiple projects. Even when an individual project does not have significant impacts, in combination with other related projects, these cumulative effects may be considerable. The cumulative study area varies by location along the I-80 corridor. Urbanized areas are largely built-out or planned for future residential, commercial, or industrial development projects. Outside of urbanized areas, lands are designated for agricultural and/or open space uses. As such, the environmental document will have to establish a list of potentially approved future projects in the vicinity of the study area that could cumulatively impact several areas of environmental resources.

Potential cumulative impacts for the action alternatives would generally be related to traffic, noise, and air quality/greenhouse gas emission issues resulting from regional growth. These cumulative impacts are therefore generally accounted for in the long-term scenarios of the noise, air quality, and greenhouse gas emissions technical reports, which would be based on the regional growth projected in the traffic operation analysis. Other cumulative impacts to which the action alternatives could contribute include the loss of biological resources or wetlands.

8.17 Context Sensitive Solutions:

The Department uses Context Sensitive Solutions (CSS) to integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. CSS are reached through a collaborative, interdisciplinary approach involving all stakeholders, engaged through early coordination with agencies as well as early outreach to the community.

STA has proposed the two different action alternatives in part related to the issue of context sensitivity. ALT B would meet the purpose and need of the project but would require substantial right-of-way acquisitions. In contrast, ALT A would also meet the purpose and need, but would achieve this through more intensive use of the existing freeway right-of-way (i.e., conversion of the median to express lanes) but would require several exceptions to various Caltrans design standards. Both alternatives would be carried through the environmental documents to clearly demonstrate the pros and cons of each relative to context sensitivity.

9. Summary Statement for Project Study Report or Project Study Report-Project Development Support

The appropriate level of environmental document could be an EIR/EIS if ALT B as currently configured is carried forward as an action alternative. This is because it is likely that ALT B would result in significant and unavoidable adverse effects to Peña Adobe. The recommended historic architecture evaluation will be necessary to determine the precise extent of any such impacts to Peña Adobe and whether such impacts can be successfully mitigated. ALT B could take enough land in the surrounding park such that the integrity of the historic resource is compromised to such a degree to adversely affect its eligibility for inclusion on the National Register.

It should be noted that Peña Adobe will also require close analysis for impacts under Section 4(f), as it is likely to qualify as a Section 4(f) property. Section 4(f) regulations stipulate that the DOT cannot approve a project found to use a Section 4(f) resource if any “feasible or prudent” alternative is available. Assuming the analysis concludes that ALT B would result in the use of a Section 4(f) resource, in order for ALT B to move forward, an analysis of all feasible or prudent alternatives to use of the Section 4(f) resource would be required.

The appropriate level of environmental document for ALT A standing alone could be an MND/EA. This document level would be supportable based on the environmental constraints present in the project study area and the low potential for the project (including all design options) to cause significant environmental impacts.

The Department would act as the lead agency in the preparation of this joint NEPA/CEQA environmental document. The Department will serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. It is expected that the environmental technical reports and environmental document (IS/EA or EIR/EIS) would take approximately 24 to 42 months to prepare and process for final certification/approval, including time for substantive review by the environmental division staff with the Department. It is anticipated multiple environmental studies and reports will be required for this project.

See **Appendix A**, of this attachment, for the complete list of environmental studies and reports that would be prepared for this project.

10. Disclaimer

This PEAR provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR would be necessary in the event that changes occurred in project scope or alternatives, or in environmental laws, regulations, or guidelines.

11. List of Preparers

Document Authors



John Cook, Senior Environmental Planner
Circlepoint

Date: March 26, 2012

12. Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.



Environmental Branch Chief

Date: 27 March 2012



Project Manager

Date: 3/27/2012

REQUIRED ATTACHMENTS:

Appendix A: PEAR Environmental Studies Checklist

Appendix B: Estimated Resources by WBS Code

Appendix C: Schedule (Gantt Chart)

Appendix D: PEAR Environmental Commitments Cost Estimate (Standard PSR)



PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

APPENDIX A

Attachment A: PEAR Environmental Studies Checklist

Rev. 11/08

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Land Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Farmlands/Timberlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Community Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Community Character and Cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Relocations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Utilities/Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Visual/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Cultural Resources:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Archaeological Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Historic Resources Evaluation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Historic Property Survey Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Historic Resource Compliance Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 106 / PRC 5024 & 5024.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Finding of Effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Data Recovery Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Memorandum of Agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Hydrology and Floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Water Quality and Stormwater Runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Geology, Soils, Seismic and Topography	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Paleontology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
PER	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
PMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Hazardous Waste/Materials:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
PSI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Noise and Vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Energy and Climate Change	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Biological Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Natural Environment Study	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Section 7:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Formal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Informal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
No effect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
USFWS Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
NMFS Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Species of Concern (CNPS, USFS, BLM, S, F)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	CTS, CRLF

Environmental Studies for PA&ED Checklist

	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Wetlands & Other Waters/Delineation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
404(b)(1) Alternatives Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Wild & Scenic River Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Coastal Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
HMMP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
DFG Consistency Determination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
2081	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Cumulative Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Context Sensitive Solutions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 4(f) Evaluation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M	
Permits:					
401 Certification Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
404 Permit Coordination, IP, NWP, or LOP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
1602 Agreement Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Local Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
State Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
NPDES Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
TRPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
BCDC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	

Attachment A: PEAR Environmental Studies Checklist

Rev. 11/08

Environmental Studies for PA&ED Checklist							
	Not anticipated	Memo to file	Report required	Risk*			Comments
				L	M	H	
Land Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Farmlands/Timberlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Community Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Community Character and Cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Relocations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Utilities/Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Visual/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Cultural Resources:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Archaeological Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Historic Resources Evaluation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Historic Property Survey Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Historic Resource Compliance Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Section 106 / PRC 5024 & 5024.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Finding of Effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Data Recovery Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Memorandum of Agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Hydrology and Floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Water Quality and Stormwater Runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Geology, Soils, Seismic and Topography	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Paleontology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
PER	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
PMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
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PSI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Noise and Vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L			
Energy and Climate Change	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L			
Biological Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Natural Environment Study	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Section 7:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Formal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
Informal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
No effect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
Section 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L			
USFWS Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
NMFS Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H			
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404(b)(1) Alternatives Analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Wild & Scenic River Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Coastal Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
HMMP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
DFG Consistency Determination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
2081	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Cumulative Impacts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Context Sensitive Solutions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 4(f) Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Permits:					
401 Certification Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
404 Permit Coordination, IP, NWP, or LOP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
1602 Agreement Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Local Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
State Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
NPDES Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	M	
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
TRPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
BCDC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	



PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

APPENDIX B

Appendix B - Resources by WBS Code

EA:	<i>NOTE: This WBS resource estimating tool is for Generalist use ONLY when a district-specific WBS estimating tool is not available. Check with your supervisor before using this form.</i>													WBS current 11/2008		
Description:	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)		
Project Management																
100.05.05 – Project Init. & Plng.											0			0		
100.05.10 – PID Cmpnt Exec. & Ctrl.											0			0		
100.05.15 – PID Cmpnt Closeout											0			0		
100.10.05 – PA&ED Cmpnt Init. & Plng.											0			0		
100.10.10 – PA&ED Cmpnt Exec. & Ctrl.											0			0		
100.10.15 – PA&ED Cmpnt Closeout											0			0		
100.10.20 – Project Shelving (PA&ED)											0			0		
100.10.25 – Project Unshelving (PA&ED)											0			0		
100.10.30 – Updd Admtv Rec during PA&ED											0			0		
100.10.35 – Execd Coop Agre for PA&ED Process											0			0		
100.15.05 – PS&E Cmpnt Init. & Plng.											0			0		
100.15.10 – PS&E Cmpnt Exec. & Ctrl.											0			0		
100.15.15 – PS&E Cmpnt Closeout											0			0		
100.15.20 – Project Shelving (PS&E)											0			0		
100.15.25 – Project Unshelving (PS&E)											0			0		
100.15.30 – Updd Admtv Rec during PS&E											0			0		
100.15.35 – Execd Coop Agre for PS&E Process											0			0		
100.20.05 – Const. Cmpnt Init. & Plng.											0			0		
100.20.10 – Const. Cmpnt Exec. & Ctrl.											0			0		
100.20.15 – Const. Cmpnt Closeout											0			0		
100.20.20 – Project Shelving (Construction)											0			0		
100.20.25 – Project Unshelving (Construction)											0			0		
100.20.30 – Updd Admtv Rec during Const											0			0		
100.20.35 – Execd Coop Agre for Const Process											0			0		
100.25.05 – R/W Cmpnt Init. & Plng.											0			0		
100.25.10 – R/W Cmpnt Exec. & Ctrl.											0			0		
100.25.15 – R/W Cmpnt Closeout											0			0		
100.25.20 – Project Shelving (Right of Way)											0			0		
100.25.25 – Project Unshelving (Right of Way)											0			0		
100.25.30 – Updd Admtv Rec during R/W											0			0		
100.25.35 – Execd Coop Agre for R/W Process											0			0		
100.25.50 – Execd Coop Agre for R/W Rlnmnt											0			0		
Total Project Management	0	0	0	0	0	0	0	0	0	0	0					
Perform Preliminary Engineering Studies and Prepare Draft Project Report																
160.05.05 – Approvd PID Review											0			0		
160.05.10 – Geotechnical Information Review											0			0		
160.05.20 – Traffic Data & Forecasts Review											0			0		
160.05.30 – Project Scope Review											0			0		
160.10.20 – Value Analysis											0			0		
160.10.25 – Hydraulics/Hydro Study											0			0		
160.10.30 – Hwy Planting Des Concepts											0			0		
160.15.20 – Draft Project Report											0			0		
160.15.25 – Draft PR Circ, Rev & App											0			0		

160.30.05 – Maps for ESR												0			0
160.30.10 – Surveys/Maps for Env Studies												0			0
160.30.15 – Prop Access Rights for Env/Eng Studies												0			0
160.40 – NEPA Delegation												0			0
Total Prelim Eng Studies	0	0	0	0	0	0	0	0	0	0	0	0			
Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
Perform Environmental Studies and Prepare Draft Environmental Document															
165.05.05 – Project Information Review											0				0
165.05.10 – Pub & Agency Scoping											0				0
165.05.15 – Alts for Further Study											0				0
165.10.15 – CIA, Land Use & Growth											0				0
165.10.25 – Noise Study											0				0
165.10.30 – Air Quality Study											0				0
165.10.35 – Water Quality Studies											0				0
165.10.40 – Energy/Climate Change Studies											0				0
165.10.45 – Sum Geotech Report											0				0
165.10.50 – Preliminary Site Investigation HW											0				0
165.10.55 – Draft R/W Relocation Impact Eval											0				0
165.10.65 – Paleontology Study											0				0
165.10.70 – Wild & Scenic River Coordination											0				0
165.10.75 – Envir Commitments Record											0				0
165.10.99 - Other Env Studies											0				0
165.15.05 – Biological Assessment											0				0
165.15.10 – Wetlands Study											0				0
165.15.15 – Resource Agency Coord											0				0
165.15.20 – NES Report											0				0
165.15.99 – Other Biological Studies											0				0
165.20.05 – Archaeology Survey											0				0
165.20.05.05 – APE Map											0				0
165.20.05.10 – NA Consultation											0				0
165.20.05.15 – Records & Literature Search											0				0
165.20.05.20 – Field Survey											0				0
165.20.05.25 – ASR											0				0
165.20.05.99 – Other Archy Survey Products											0				0
165.20.10 – Extended Phase I Archy Studies											0				0
165.20.10.05 – Native American Consultation											0				0
165.20.10.10 – Extended Phase I Proposal											0				0
165.20.10.15 – XP1 Field Investigation											0				0
165.20.10.20 – XP1 Materials Analysis											0				0
165.20.10.25 – Extended Phase I Report											0				0
165.20.10.99 – Other Phase I Archy Products											0				0
165.20.15 – Phase II Archy Studies											0				0
165.20.15.05 – NA Consultation											0				0
165.20.15.10 – Phase II Proposal											0				0
165.20.15.15 – Field Investigation											0				0
165.20.15.20 – Materials Analysis											0				0
165.20.15.25 – Phase II Report											0				0
165.20.15.99 – Other Phase II Archy Products											0				0
165.20.20 – Hist & Architectural Studies											0				0
165.20.20.05 – Prelim APE/Study Area Maps - Archl											0				0
165.20.20.10 – Hist Res Eval Rpt - Archy											0				0

165.20.20.15 – Hist Res Eval Rpt - Archl												0			0
165.20.20.20 – Bridge Evaluation												0			0
165.20.20.99 – Other H & A Study Products												0			0
165.20.25 – Cultural Res Comp Docs												0			0
165.20.25.05 – Final APE Maps												0			0
165.20.25.10 – PRC 5024.5 Consult												0			0
165.20.25.15 – HPSR/HRCR												0			0
165.20.25.20 – Finding of Effect												0			0
165.20.25.25 – Archy Data Recovery Pln												0			0
165.20.25.30 – MOA												0			0
165.20.25.99 – Other Cult Res Comp Products												0			0
165.25.05 – Draft ED Analysis												0			0
165.25.10 – 4(f) Evaluation												0			0
165.25.15 – CE/CE Determination												0			0
165.25.20 – Env Quality Control & Other Reviews												0			0
165.25.25 – Approval to Circ Resolution												0			0
Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
165.25.30 – Env Coordination											0				0
165.25.99 – Other DED Products											0				0
165.30 – NEPA Delegation											0				0
Total Env Studies & Prep DED	0	0	0	0	0	0	0	0	0	0	0				
Permits, Agreements, and Route Adoptions during PA&ED Cmpnt															
170.05 - Required Permits (list)												0			0
170.10.05 - US Army Corps 404 Permit												0			0
170.10.10 - US Forest Service Permit(s)												0			0
170.10.15 - US Coast Guard Permit												0			0
170.10.20 - DFG 1600 Agreement(s)												0			0
170.10.25 - Coastal Zone Development Permit												0			0
170.10.30 - Local Agency Concurrence/Permit												0			0
170.10.40 - Waste Discharge (NPDES) Permit(s)												0			0
170.10.45 - US Fish & Wildlife Service Approval												0			0
170.10.50 - RWQCB 401 Permit												0			0
170.10.60 - Updated ECR												0			0
170.10.95 - Other Permits												0			0
170.45 - MOU from TERO Office												0			0
170.55 - NEPA Delegation												0			0
Total Permits, Agreements & Route Adoptions	0	0	0	0	0	0	0	0	0	0	0				
Circulate Draft Environmental Document and Select Preferred Project Alternative															
175.05.05 – Master Dist & Invitation Lists												0			0
175.05.10 – Notices Pub Hear & DED Avail												0			0
175.05.15 – DED Pub & Circulation												0			0
175.05.20 – Fed Consistency Det (Coastal)												0			0
175.05.99 – Other DED Circulation Products												0			0
175.10.05 – Need for Pub Hearing Determination												0			0
175.10.10 – Pub Hearing Logistics												0			0
175.10.15 – Displays for Pub Hearing												0			0
175.10.20 – 2nd Notice Pub Hear & Avail												0			0
175.10.25 – Map Display & Hearing Plan												0			0
175.10.30 – Display Pub Hear Maps												0			0
175.10.35 – Public Hearing												0			0

175.10.40 – Record of Public Hearing												0			0
175.10.99 – Other Pub Hearing Products												0			0
175.15 – Responses to Pub Hear Comments												0			0
175.20 – Project Preferred Alternative												0			0
175.25 – NEPA Delegation												0			0
Total DED & Preferred Alt	0	0	0	0	0	0	0	0	0	0	0	0			0
Prepare and Approve Project Report and Final Environmental Document															
180.05.10 – Approved Project Rep												0			0
180.05.15 – Updated Stormwater Data Report												0			0
180.10.05 – Approved FED												0			0
180.10.05.05 – Draft FED Review												0			0
180.10.05.10 – Revised Draft FED												0			0
180.10.05.15 – Section 4(f) Evaluation												0			0
180.10.05.20 – Findings Report												0			0
180.10.05.25 – Statement of Overriding Consid												0			0
180.10.05.30 – CEQA Certification												0			0
180.10.05.35 – FHWA and Approval												0			0
180.10.05.40 – Section 106 Cons & MOA												0			0
180.10.05.45 – Section 7 Consultation												0			0
180.10.05.50 – Final Section 4(f) Statement												0			0
180.10.05.55 – Floodplain Only PAF												0			0
180.10.05.60 –Wetlands Only PAF												0			0
180.10.05.65 – Sect 404 Permit Compliance												0			0
180.10.05.70 – Mitigation Measures												0			0
180.10.10 – Public Dist & Resp to Comments												0			0
Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
180.10.15 – Final R/W Relo Impact Document											0				0
180.10.99 – Other FED Products											0				0
180.15.05 – ROD (NEPA)											0				0
180.15.10 – NOD (CEQA)											0				0
180.15.20 – Env Commitments Record											0				0
180.15.99 – Other Complete ED Products											0				0
180.20 – NEPA Delegation											0				0
Total App PR & FED	0	0	0	0	0	0	0	0	0	0	0				0
Update Project Info for PS&E															
185.05.05 – Project Concept Review for PS&E											0				0
185.05.10 – Updated Project Info for PS&E dev											0				0
Total Update for PS&E	0	0	0	0	0	0	0	0	0	0	0				0
ROW & Excess Land															
195.40.25 – Property Maint & Rehab (non-rental)											0				0
195.40.35 – Transfer of Prop to Clear Status											0				0
195.45.05 – Excess Lands Inventory											0				0
195.45.20 – Prop Disp Units less than \$15 K											0				0
195.45.25 – Prop Disp Units \$15 K - \$500 K											0				0
195.45.30 – Prop Disp Units over \$500 K											0				0
Total ROW & Excess Land	0	0	0	0	0	0	0	0	0	0	0				0
Utility Relocation															
200.15 – Approved Utility Relocation Plan											0				0

200.20 – Utility Relocation Package												0			0
Total Coordinate Utilities	0	0	0	0	0	0	0	0	0	0	0	0			0
Permits, Agreements, and Route Adoptions during PS&E Cmpnt															
205.10.05 - US Army Corps 404 Permit												0			0
205.10.10 - US Forest Service Permit(s)												0			0
205.10.15 - US Coast Guard Permit												0			0
205.10.20 - DFG 1600 Agreement												0			0
205.10.25 - Coastal Development Permit												0			0
205.10.30 - Local Agency Concurrence/Permit												0			0
205.10.40 - Waste Discharge (NPDES) permit												0			0
205.10.45 - US Fish & Wildlife Service Approval												0			0
205.10.50 - RWQCB 401 Permit												0			0
205.10.60 - Updated ECR												0			0
205.10.95 - Other Permits												0			0
205.20.05 – Draft Fwy Agreement												0			0
205.20.10 – Draft Fwy Agree Review												0			0
205.20.15 – Final Fwy Agree												0			0
205.20.20 – Executed Fwy Agreement												0			0
205.40.10 - New Connections & Route Adopt Sbtl												0			0
205.55 - NEPA Delegation												0			0
Total Permits, Agreements, and Route Adoptions	0	0	0	0	0	0	0	0	0	0	0	0			0
Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
Right of Way Interests															
225.55.20 – Right of Way Clearance											0				0
Total Right of Way Interests	0	0	0	0	0	0	0	0	0	0	0				0
Prepare Draft PS&E															
230.05.45 – Noise Barrier Plans											0				0
230.10.05 – Hwy Planting Plans											0				0
230.10.15 – Plant List											0				0
230.35.10 – Hwy Planting Specs											0				0
230.35.35 – Water Pollution Ctrl Specs											0				0
230.35.40 – Erosion Control Specs											0				0
230.60 – Updated Proj Info for PS&E Package											0				0
230.60.05 - Updated Storm Water Data Report											0				0
230.60.10 – Other Reviews/Updates Proj Info											0				0
230.90 – NEPA Delegation											0				0
Total Prepare Draft PS&E	0	0	0	0	0	0	0	0	0	0	0				0
Mitigate Environmental Impacts and Clean-up Hazardous Waste															
235.05.05 – Hist Structures Mitig											0				0
235.05.10 – Archy & Cult Mitigation											0				0
235.05.15 – Biological Mitigation											0				0
235.05.20 – Env Mitigation R/W work											0				0
235.05.25 – Paleontology Mitigation											0				0
235.05.99 - Other Env Mitigation Products											0				0
235.10.10 – Haz Waste Sites Survey											0				0
235.10.15 – Detailed HW Sites Investigation											0				0
235.15 – HW Management Plan											0				0
235.20 – HW PS&E											0				0

235.25 – HW Clean-up												0			0
235.30 – Certification of Sufficiency (HW)												0			0
235.35 – Long Term Mitigation Monitoring												0			0
235.40 – Updated ECR												0			0
235.45 – NEPA Delegation												0			0
Total Mitigation & HW Clean-up	0	0	0	0	0	0	0	0	0	0	0	0			0
Permits for Subsurface Geotechnical Exploration															
240.70 – Site Ready for Subsurface Exploration												0			0
Total Geotechnical Permit	0	0	0	0	0	0	0	0	0	0	0	0			0
Circulate, Review and Prepare Final District PS&E Package															
255.05 – Circ & Rev Draft Dist PS&E												0			0
255.10.25 - Updated Technical Reports												0			0
255.15 – Env Reevaluation												0			0
255.20.05 - Rev Plans for Stds Comp												0			0
255.40 - Res Engs Pending File												0			0
255.45 – NEPA Delegation												0			0
Total PS&E	0	0	0	0	0	0	0	0	0	0	0	0			0
Assigned Unit															
	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
Prepare Contract Documents															
260.75 - Env Cert at RTL											0				0
Total Prepare Contract Documents	0	0	0	0	0	0	0	0	0	0	0				0
Perform Construction Engineering and General Contract Administration															
270.20.50 – Technical Support											0				0
270.55 – Final Inspect & Accept Rec											0				0
270.70 – Update ECR											0				0
270.75 – Permit Renewal & Extension											0				0
270.80 – Long-Term Mitigation Contract											0				0
Total Const Engineering	0	0	0	0	0	0	0	0	0	0	0				0
Prepare and Administer Contract Change Orders															
285.05.05 - Need for CCO Determination											0				0
285.10.15 – Other Func Support											0				0
Total CCOs	0	0	0	0	0	0	0	0	0	0	0				0
Resolve Contract Claims															
290.35 – Provide Technical Support											0				0
Total Contract Claims	0	0	0	0	0	0	0	0	0	0	0				0
Accept Contract, Prepare Final Construction Estimate & Prepare Final Report															
295.35 – Cert of Env Compliance											0				0
295.40 – Long-Term Mitigation Contract											0				0
Total Final Construction	0	0	0	0	0	0	0	0	0	0	0				0
Total Project Hours	0	0	0	0	0	0	0	0	0	0	0				0












PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

APPENDIX C

I-80 Express Lanes
Conceptual ED Schedule

ID	Task Name	Start	Finish	2012				2013				2014				2015				2016				2017
				Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1																								
2	Draft Environmental Document	Thu 3/1/12	Mon 9/2/13																					
3	Final Environmental Document/Environmental Approval	Tue 9/3/13	Mon 3/3/14																					
4	PS&E	Tue 3/4/14	Mon 6/1/15																					
5	Begin Construction	Tue 6/2/15	Mon 1/2/17																					

Project: Attachment C Conceptual Sch Date: Wed 3/28/12	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	



PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

APPENDIX D

Attachment D: PEAR Environmental Commitments Cost Estimate

Standard PSR Only

(Prepare a separate form for each viable alternative described in the Project Study Report)

PART 1 PROJECT INFORMATION

rev. 11/08

District-County-Route-Post Mile 4-SOL-80-11.2/29.3	EA: 0G360K
Project Description: I-80 Express Lanes- Minimum Impact Alternative (ALT A)	
Form completed by (Name/District Office): District 4	
Project Manager: TBD	Phone Number: TBD
Date: 11/10/2011	

PART 2 PERMITS AND AGREEMENTS

	Permits and Agreements (\$\$)
<input checked="" type="checkbox"/> Fish and Game 1602 Agreement	50000
<input type="checkbox"/> Coastal Development Permit	
<input type="checkbox"/> State Lands Agreement	
<input checked="" type="checkbox"/> Section 401 Water Quality Certification	50000
<input checked="" type="checkbox"/> Section 404 Permit – Nationwide (U.S. Army Corps)	50000
<input type="checkbox"/> Section 404 Permit – Individual (U.S. Army Corps)	
<input type="checkbox"/> Section 10 Navigable Waters Permit (U.S. Army Corps)	
<input type="checkbox"/> Section 9 Permit (U.S. Coast Guard)	
<input type="checkbox"/> Other:	
Total (enter zeros if no cost)	

PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

To complete the following information:

- Report costs in \$1,000s.
- Include all costs to complete the commitment:
 - Capital outlay and staff support. Refer to Estimated Resources by WBS Code. For example, if you estimated 80 hours for biological monitoring (WBS 235.35 Long Term Mitigation Monitoring), convert those hours to a dollar amount for this entry. For current conversion rates from PY to dollars, see the Project Manager.
 - Cost of right of way or easements.
 - If compensatory mitigation is anticipated (for wetlands, for example), insert a range for purchasing credits in a mitigation bank.
 - Long-term monitoring and reporting
 - Any follow-up maintenance
 - Use current costs; the Project Manager will add an appropriate escalation factor.
 - This is an estimating tool, so a range is not only acceptable, but advisable.

Environmental Commitments Alternative ALT A		
	Estimated Cost in \$1,000's	Notes
Noise abatement or mitigation		min. new walls
Special landscaping		oleander?
Archaeological resources	30	const. monitor
Biological resources	60	mitigation
Historical resources	0	none antic.
Scenic resources		
Wetland/riparian resources	100	mitigation
Res./bus. relocations		
Other:		
Total (enter zeros if no cost)		

Attachment D: PEAR Environmental Commitments Cost Estimate

Standard PSR Only

(Prepare a separate form for each viable alternative described in the Project Study Report)

PART 1 PROJECT INFORMATION

rev. 11/08

District-County-Route-Post Mile 4-SOL-80-11.2/29.3	EA: 0G360K
Project Description: I-80 Express Lanes- Full Standard Improvement Alternative (ALT B)	
Form completed by (Name/District Office): District 4	
Project Manager: TBD	Phone Number: TBD
Date: 11/10/11	

PART 2 PERMITS AND AGREEMENTS

	Permits and Agreements (\$\$)
<input checked="" type="checkbox"/> Fish and Game 1602 Agreement	50000
<input type="checkbox"/> Coastal Development Permit	
<input type="checkbox"/> State Lands Agreement	
<input checked="" type="checkbox"/> Section 401 Water Quality Certification	50000
<input type="checkbox"/> Section 404 Permit – Nationwide (U.S. Army Corps)	
<input checked="" type="checkbox"/> Section 404 Permit – Individual (U.S. Army Corps)	150000
<input type="checkbox"/> Section 10 Navigable Waters Permit (U.S. Army Corps)	
<input type="checkbox"/> Section 9 Permit (U.S. Coast Guard)	
<input type="checkbox"/> Other:	
Total (enter zeros if no cost)	250000

PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

To complete the following information:

- Report costs in \$1,000s.
- Include all costs to complete the commitment:
 - Capital outlay and staff support. Refer to Estimated Resources by WBS Code. For example, if you estimated 80 hours for biological monitoring (WBS 235.35 Long Term Mitigation Monitoring), convert those hours to a dollar amount for this entry. For current conversion rates from PY to dollars, see the Project Manager.
 - Cost of right of way or easements.
 - If compensatory mitigation is anticipated (for wetlands, for example), insert a range for purchasing credits in a mitigation bank.
 - Long-term monitoring and reporting
 - Any follow-up maintenance
 - Use current costs; the Project Manager will add an appropriate escalation factor.
 - This is an estimating tool, so a range is not only acceptable, but advisable.

Environmental Commitments Alternative		
	Estimated Cost in \$1,000's	Notes
Noise abatement or mitigation		New soundwalls
Special landscaping		Oleander replac
Archaeological resources	100	Const, monitor
Biological resources	1000	mitigation
Historical resources	100	Pena Adobe
Scenic resources		
Wetland/riparian resources	500	mitigation
Res./bus. relocations		
Other:		
Total (enter zeros if no cost)		