**CALENDAR ITEM**
# C44

A 78 12/17/14
PRC 9149.9
S 39 D. Simpkin

**APPROVAL OF A PUBLIC AGENCY PERMIT AND RIGHT-OF-WAY MAPS PURSUANT TO SECTION 101.5 OF THE STREETS AND HIGHWAYS CODE AND THE CALIFORNIA PUBLIC RESOURCES CODE SECTION 6210.3**

**LESSEE:**
California Department of Transportation

**AREA, LAND TYPE, AND LOCATION:**
Sovereign land in Batiquitos Lagoon, city of Carlsbad, San Diego County

**AUTHORIZED USE:**
Removal of an existing bridge and the construction, use, and maintenance of a new bridge crossing Batiquitos Lagoon along Interstate 5.

**LEASE TERM:**
Continuous use, plus one year, beginning December 17, 2014.

**CONSIDERATION:**
Reasonable value of the right-of-way to be deposited into the State Parks and Recreation Fund.

**OTHER PERTINENT INFORMATION:**

1. The California Department of Transportation (Caltrans) owns or has the right to use the upland.

2. The proposed Caltrans Interstate 5 (I-5) North Coast Corridor Project (Project) will improve and maintain existing and future traffic operations on the I-5 freeway from La Jolla Drive in San Diego to Harbor Drive in Oceanside/Camp Pendleton, extending approximately 27 miles. As part of the I-5 Project, Caltrans will remove the existing bridge crossing Batiquitos Lagoon and replace it with a new 12-lane bridge.

3. The existing bridge has never been authorized by the Commission. Caltrans is now applying for the issuance of a Public Agency Permit and a Right-of-Way map pursuant to section 101.5 of the Streets and Highways

Code for the proposed replacement of the existing Batiquitos Lagoon Bridge.

4. Caltrans has filed maps showing the right-of-way area with the Commission.

5. Section 101.5 of the Streets and Highways Code requires Caltrans to determine the reasonable value of the proposed right-of-way and to deposit such amount in the State Parks and Recreation Fund.

6. Environmental Impact Report/Statement (EIR/S), State Clearinghouse No. 2004101076, was prepared for this project by Caltrans District 11 and certified on November 4, 2013. The California State Lands Commission staff has reviewed such document and Mitigation Monitoring Program prepared pursuant to the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21081.6) and adopted by the lead agency.

   Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) are contained in Exhibit D, attached hereto.

7. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

**EXHIBITS:**

A**.** Site and Location Map
B**.** Section 101.5 Right-of-Way Map
C. Mitigation and Monitoring Program
D. Statement of Findings

**RECOMMENDED ACTION:**

It is recommended that the Commission:

**CEQA FINDING:**

Find that an EIR/S, State Clearinghouse No. 2004101076, was prepared for this Project by Caltrans and certified on November 4, 2013, and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, Title 14, sections 15091 and 15096, subdivision (h), as contained in Exhibit D, attached hereto.

Determine that the Project, as approved, will not have a significant effect on the environment.

**SIGNIFICANT LANDS INVENTORY FINDING:**

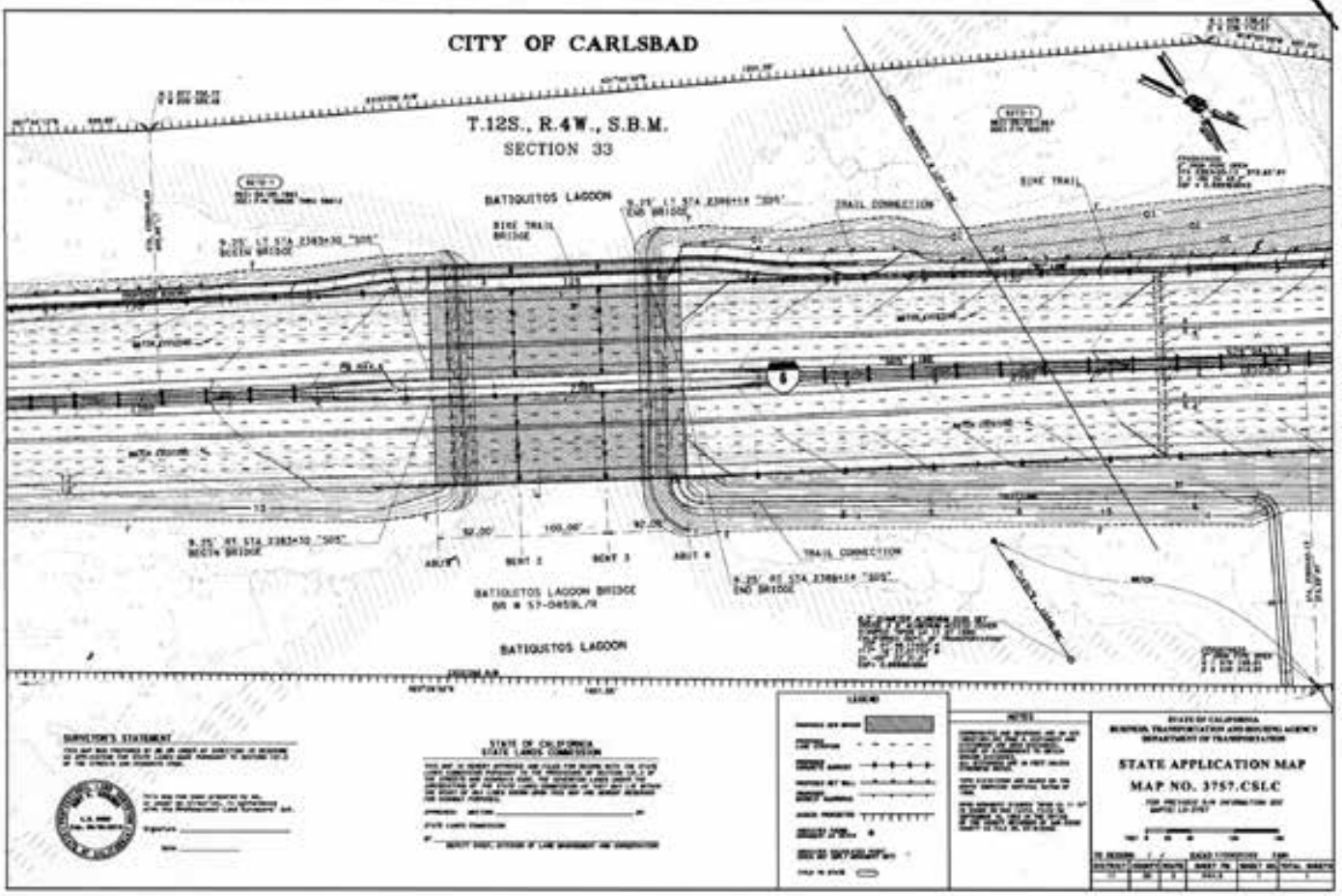
Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

**AUTHORIZATION:**

Authorize a Public Agency Permit to California Department of Transportation and approve a Right-of-Way Map pursuant to section 101.5 of the Streets and Highways Code and as authorized by section 6210.3 of the Public Resources Code, effective December 17, 2014, for continuous use plus one year, of a right-of-way including the replacement of the Batiquitos Lagoon Bridge along Interstate 5 near the city of Carlsbad as shown on Exhibit A attached and by this reference made a part hereof.

NO SCALE

# SITE




Batiquitos Lagoon - Carlsbad

NO SCALE

# LOCATION


MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

# Exhibit A

PRC 9149.9
CALTRANS
STREETS & HIGHWAY
CODE SECTION 101.5
SAN DIEGO COUNTY


MJF 11/19/14

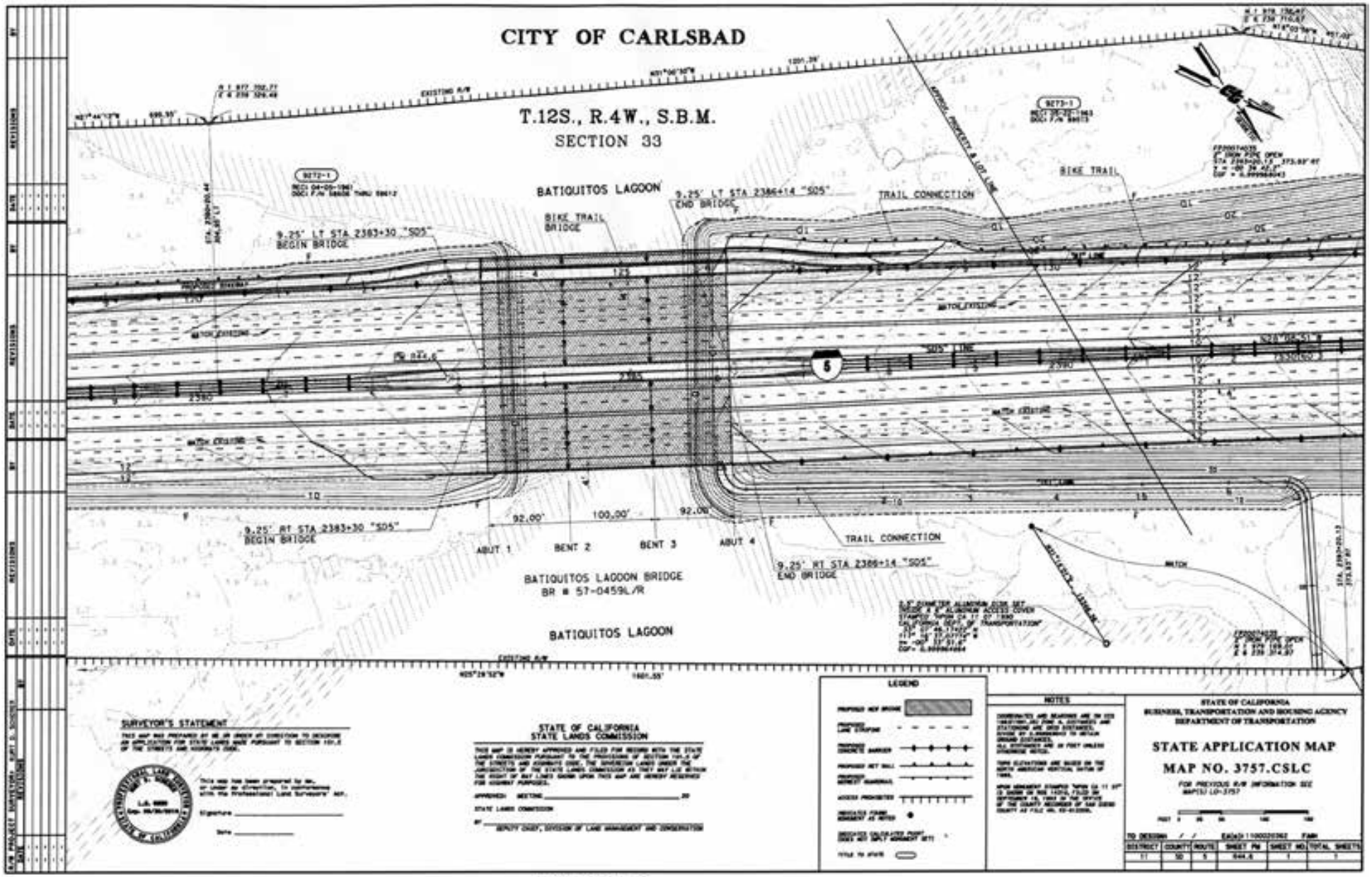

CITY OF CARLSBAD
T.12S., R.4W., S.B.M.
SECTION 33
BATIQUITOS LAGOON
BIKE TRAIL BRIDGE
9.25' LT STA 2383+30 "SOS" BEGIN BRIDGE
9.25' LT STA 2386+14 "SOS" END BRIDGE
TRAIL CONNECTION
BIKE TRAIL
9.25' RT STA 2383+30 "SOS" BEGIN BRIDGE
9.25' RT STA 2386+14 "SOS" END BRIDGE
TRAIL CONNECTION
92.00'
100.00'
92.00'
ABUT 1
BENT 2
BENT 3
ABUT 4
BATIQUITOS LAGOON BRIDGE
BR # 57-0459L/R
BATIQUITOS LAGOON
5
SURVEYOR'S STATEMENT
STATE OF CALIFORNIA
STATE LANDS COMMISSION
LEGEND
NOTES
STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
STATE APPLICATION MAP
MAP NO. 3757.CSLC

EXHIBIT B

# EXHIBIT C
## CALIFORNIA STATE LANDS COMMISSION
## MITIGATION MONITORING PROGRAM

## INTERSTATE 5 NORTH COAST CORRIDOR, BATIQUITOS LAGOON BRIDGE
(State Clearinghouse No. 2004101076)

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The California State Lands Commission (Commission) is a responsible agency under the California Environmental Quality Act (CEQA) for the Interstate 5 North Coast Corridor, Batiquitos Lagoon Bridge (Project). The CEQA lead agency for the Project is the California Department of Transportation (Caltrans).

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on Commission lands. The purpose of a MMP is to discuss feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration. State CEQA Guidelines section 15097, subdivision (a), states in part:[1]

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*

The lead agency has adopted a MMP for the whole of the Project (see Exhibit C, Attachment C-1) and remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. Any mitigation measures adopted by the Commission that differ substantially from those adopted by the lead agency are also identified in Table C-1.

[1] The State CEQA Guidelines are found at California Code of Regulations, Title 14, section 15000 et seq.

## Table C-1. Project Impacts and Applicable Mitigation Measures.

| Potential Impact | Mitigation Measure (MM)[2] | Difference Between CSLC MMP and Lead Agency MMP |
|---|---|---|
| **Impact CR-1.** Implementation of the Project could result in significant impacts to cultural resources if currently unknown archaeological sites are encountered during project construction. | See pp. 15-16 of Attachment 1 | **MM CR-1. Cultural Resource Measures.** (A MM title was assigned). |
| **Impact P-1.** Direct impacts to paleontological resources could occur when mass grading cuts extend into geological deposits containing fossils. Although the precise types, depths, and locations of various construction activities are not known at this time, unearthing of paleontological resources is anticipated. | See p. 20 of Attachment 1 | **MM P-1. Paleontological Resource Measures.** (A MM title was assigned) |
| **Impact BIO-1.** Implementation of the Project would result in potentially significant impacts to a number of sensitive native and non-native communities. | **BO2 – BO4** See p. 25 of Attachment 1 | None. |
| | **BO7 and BO8** See p. 26 of Attachment 1 | None. |
| | **BO9** See pp. 26-28 of Attachment 1 | Measures a-d and f-h are omitted; measure l contains the change shown below, otherwise the measure is the same:<br><br>l. Wildlife benches will be maintained ~~in perpetuity~~ to ensure that wildlife connectivity in the project area is not lost over time. The wildlife connectivity plan will include a detailed explanation of how wildlife benches will be maintained and how the maintenance will be funded. |
| | **BO10** See p. 28 of Attachment 1 | Measures 1, 4, and 5 are omitted; otherwise the measures are the same. |
| | **BO11 – BO12** See p. 28 of Attachment 1 | None. |
| | **BO15 – BO30** See pp. 29-31 of Attachment 1 | None. |

[2] See Attachment C-1 for the full text of each MM taken from the MMP prepared by the CEQA lead agency.

| Potential Impact | Mitigation Measure (MM)[2] | Difference Between CSLC MMP and Lead Agency MMP |
|---|---|---|
| | **BO31** See pp. 31-33 of Attachment 1 | Measure c is omitted; otherwise measures are the same. |
| | **BO32 – BO34** See p. 33 of Attachment 1 | None. |
| | BO42-BO43 See p. 38 of Attachment 1 | None. |
| **Impact BIO-2.** Implementation of the Project would result in the Incidental take of Coastal California Gnatcatcher and Light-footed Clapper Rail. | See p. 39 (1.1 and 1.2) of Attachment 1 | **MM BIO-2.1. Reasonable and prudent measures for Coastal California Gnatcatcher.** (A MM title was assigned and measures were renumbered) |
| | See p. 39 (2.1 and 2.2) of Attachment 1 | **MM BIO-2.2. Reasonable and prudent measures for Light-footed Clapper Rail.** (A MM title was assigned and measures were renumbered) |
| | See p. 40 of Attachment 1 | **MM BIO-2.3. Disposition of Sick, Injured, or Dead Specimens.** (A MM title was assigned) |
| **Impact BIO-3.** Implementation of the Project would result in potentially significant impacts to eelgrass. | See p. 40 of Attachment 1 | **MM BIO-3. Eelgrass Surveys.** (A MM title was assigned) |
| **Impact BIO-4.** Implementation of the Project would result in potentially significant impacts to Wetlands and Other Waters. | See p. 41 of Attachment 1 | **MM BIO-4. Bioswales and Detention Basins.** (A MM title was assigned) |
| **Impact BIO-5.** Implementation of the Project would result in potentially significant impacts to Sensitive Plants, Animals, and Threatened and Endangered Species. | See p. 41 of Attachment 1 | **MM BIO-5a. Sensitive Plant Species.** (A MM title was assigned) |
| | See p. 41 of Attachment 1 | **MM BIO-5b. Sensitive Animal Species.** (A MM title was assigned) |
| **AES-1.** Impacts to visual and aesthetic resources. Impacts to visual and aesthetic resources as they relate to the Project on lands under the jurisdiction of the CSLC (Overcrossing, Undercrossing, Bridge, and Direct Access Ramp Structures). | See p. 5 and 6 of Attachment 1 | **MM AES-1a. Visual Mitigation** (A MM title was assigned) |
| | See pp. 8-10 of Attachment 1 | **MM AES-1b. Overcrossing, Undercrossing, Bridge, and DAR Structures.** (A MM title was assigned) |

# ATTACHMENT C-1

## Mitigation Monitoring Program Adopted by the

## California Department of Transportation

Revised: 1/15/2014

# I-5 NCC Project
## Environmental Comitments Record (ECR)

**Environmental Generalist: Shay Lynn M. Harrison**
**Phone: (619) 688-0190**

**Rte: 11-SD-5**
**KP R45.75/R89.15**
**(PM R28.4/R55.4)**
**PID 1100000159 (EA 235800)**

| Task and Brief Description | Reference | Responsible Branch / Staff | Timing / Phase | NSSP, SSP, Std Spec, | Action Taken to Comply/Remarks | Task Completed | | Env. Compliance | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Date | Initial | Date |
| **Geotechnical Investigations** | | Design Engineer / Geologist | Design | | | | | | |
| **Design Kick Off** | | Project Management / Design Engineer / Environmental Staff | Design | | | | | | |
| **Environmental PS&E Review Meeting** | | Project Management / Environmental Staff | Design | | | | | | |
| **Pre-Construction Meeting** | | Project Management / Resident Engineer | Pre-construction | | | | | | |
| **Pre-Job Meeting** | | Project Management / Resident Engineer | Construction | | | | | | |
| **Mid Construction Meeting** | | Project Management / Resident Engineer | Construction | | | | | | |
| **Design Features Memorandum** | | Project Management / Resident Engineer | Post-construction | | | | | | |
| **Environmental Compliance Review** | | Project Management / Resident Engineer / Environmental Staff | Construction | | | | | | |
| **Permits and Approvals** | | | | | | | | | |
| ***U.S. Fish and Wildlife Service*** | | | | | | | | | |
| Endangered Species Act Section 7 Consultation –Threatened and Endangered Species | | Resident Engineer / Construction / Environmental / Qualified Biologist | Pre-construction | | | | | | |
| ***U.S. Army Corps of Engineers*** | | | | | | | | | |
| Clean Water Act Section 404 Individual Permit | | Resident Engineer / Construction / Environmental / Qualified Biologist | Pre-construction | | | | | | |
| Marine Protection Research and Sanctuaries Act Section 103 Permit | | Resident Engineer / Construction / Environmental / Qualified Biologist | Pre-construction | | | | | | |
| Rivers and Harbors Act Section 408 Permit | | Resident Engineer / Construction / Environmental / Qualified Biologist | Pre-construction | | | | | | |
| ***California Department of Fish and Wildlife*** | | | | | | | | | |
| Section 1602 Streambed Alteration Agreement | | Resident Engineer / Construction / Environmental / Qualified Biologist | Pre-construction | | | | | | |
| ***Regional Water Quality Control Board*** | | | | | | | | | |
| Clean Water Act Section 401 Certification | | Resident Engineer / Construction / Environmental / Qualified Biologist | Pre-construction (NPDES) | | | | | | |

# I-5 NCC Project
## Environmental Comitments Record (ECR)

**Environmental Generalist: Shay Lynn M. Harrison**
**Phone: (619) 688-0190**

**Rte: 11-SD-5**
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|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Date | Initial | Date |
| ***California Coastal Commission*** | | | | | | | | | |
| Coastal Zone Management Act Federal Consistency Determination | | Environmental | Pre-construction (PWP / TREP) | | | | | | |
| Coastal Development Permits | | Resident Engineer / Construction / Environmental | Pre-construction | | | | | | |
| ***Other Applicable Permits*** | | | | | | | | | |
| Comply with project permits | | Design Engineer / Environmental | Pre-construction / Construction | | | | | | |
| **Farmlands/Agricultural Lands/Coastal Zone Impacts** | | | | | | | | | |
| Temporary impacts to agricultural resources due to construction/assembly and construction staging areas, including temporary conversion of important agricultural lands or other temporary disruption of agricultural activities, would be addressed by returning any affected area to pre-existing agricultural use after project construction is completed. | Section 3.3.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Permanent impacts to active coastal agricultural land within the City of Encinitas and City of Carlsbad would be addressed on a site-specific basis, utilizing a tiered approach. The first tier would be for implementation of in-kind, project-specific action located within the affected jurisdiction, and could include specific activities such as implementation of school or community gardens. Should a project within the affected jurisdiction not be feasible, the second tier would be implemented, which includes payment of an Agricultural Resource Impact Mitigation Fee, pursuant to an approved in-lieu fee program. The fee should be based on net acreage of affected coastal agricultural lands and should reflect the approximate cost of preserving coastal agricultural lands elsewhere in the North Coast Corridor Coastal Zone. Fees would be handled by the affected jurisdiction, and expended in the following order of priority:<br>· Purchase of agricultural lands and/or agricultural improvements that would aid in continuing agricultural production within the North Coast Corridor Coastal Zone.<br>· Committing to specific activities that support "urban agriculture," such as farm to school programs, farm to fork restaurants, buy local, farm to grocery stores, vertical farming, farmers markets, innovative approaches to "urban agriculture" that help to create a demonstration project, re-tooling existing agricultural operations to allow for vertical farming, innovative approaches to farming, or substantial reduction in water usage, and/or endowments to programs of study in agricultural sciences in the North Coast Corridor Coastal Zone.<br><br>· If determined feasible and desirable by the County of San Diego, coordinating with the County to establish a fund to offset loss of Williamson Act subvention funds from the State for 2009/2010. | Section 3.3.4 | Project Management<br><br>(*Note: This could require high-level coordination and funding /land purchase commitments*) | Design / ROW Acquisition / Construction | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Date | Initial | Date |
| Construction staging and phasing plans should be prepared and submitted with each notice of impending development (NOID) for all project-related transportation improvement and associated community enhancement projects and should include information that specifies and quantifies any agricultural resource areas that may be impacted by temporary project construction activities. Analysis of temporary impacts from construction activities should be conducted for each NOID submittal in order to determine any loss of income or agricultural production incurred as a result of the proposed construction activities, and appropriate action/compensation should be applied in the event that impacts are identified. | Section 3.3.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Plans for habitat restoration on properties supporting existing agricultural uses should be prepared and submitted with the applicable NOID for restoration activities, and should include information that specifies and quantifies any important agricultural resource areas that may be impacted by restoration activities. | Section 3.3.4 | Qualified Environmental Staff | Design | | | | | | |
| An economic feasibility study should be conducted for any proposed specific project that would result in permanent impacts to agricultural resources in order to determine whether or not continued agricultural production would be possible after the project-related impacts have occurred. | Section 3.3.4 | Qualified Environmental Staff | Design | | | | | | |
| **Community Impacts** | | | | | | | | | |
| Landscape and streetscape improvements would be provided in affected areas, where possible, and would be consistent with the visual atmosphere, historic architecture, and native vegetation in the area. | Section 3.4.1.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Reconfiguration of interchanges, overcrossings and undercrossings along the project corridor would improve pedestrian and bicycle facilities, provide linkages, and allow for improvements to public transit. Project features would serve to improve and facilitate connectivity between communities east and west of I-5 in locations that have been previously bisected by the freeway. | Section 3.4.1.4 | Design Engineer | Design | | | | | | |
| A Traffic Management Plan (TMP) would be prepared to minimize traffic delays and closures through the use of various traffic handling practices. (see Traffic measures.) | Section 3.4.1.4 | Traffic Engineer | Design | | | | | | |
| A public awareness program would be developed to inform the public of upcoming detours and construction schedules. (see Traffic measures.) | Section 3.4.1.4 | Public Information Officer / Resident Engineer | Pre-construction / Construction | | | | | | |
| Traffic impacts around schools would be noted in the TMP. | Section 3.4.1.4 | Traffic Engineer | Design | | | | | | |
| Equipment would have sound-control devices to minimize noise, and other specifications to turn off idling equipment and installing temporary acoustic barriers around stationary construction noise sources would be implemented. | Section 3.4.1.4 | Resident Engineer | Construction | | | | | | |
| Construction equipment and truck staging and maintenance areas would be located as far as feasible and nominally downwind of schools, active recreation areas, and other communities of high-population density. | Section 3.4.1.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |

**Environmental Generalist: Shay Lynn M. Harrison**
**Phone: (619) 688-0190**

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|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Date | Initial | Date |
| In the event any hazardous materials are located within the vicinity of any Oceanside Unified School District school, including but not limited to the Oceanside High School, Caltrans would immediately notify the District and provide an explanation of the remediation measures to address the discovery of any hazardous materials during the construction of the project. | Section 3.4.1.4 | Resident Engineer | Construction | | | | | | |
| The project would implement Caltrans' Standard Specifications related to temporary dust and emissions, as well as noise control. | Section 3.4.1.4 | Resident Engineer | Construction | | | | | | |
| **Relocations** | | | | | | | | | |
| Provide relocation assistance to eligible residents in compliance with Caltrans' Relocation Assistance Program. Displacees that may face difficulty finding suitable relocation resources would be eligible for assistance from Caltrans through the State's relocation program or Last Resort Housing (LRH) Program options, including LRH payments. | Section 3.4.2.4 | Project Management / ROW Acquisition | ROW Acquisition | | | | | | |
| **Utilities and Emergency Services** | | | | | | | | | |
| The Construction Zone Enhancement Enforcement Program (COZEEP) involves the presence of CHP to improve project safety by encouraging motorists to slow down and use care while driving through construction zones. | Section 3.5.3 | Resident Engineer | Construction | | | | | | |
| The Freeway Service Patrol program, a cooperative effort between Caltrans, SANDAG and the CHP to alleviate incident-related traffic congestion by operating tow services to aid stranded or disabled vehicles on urban freeways during morning and afternoon commuter periods, would be utilized. | Section 3.5.3 | Resident Engineer | Construction | | | | | | |
| A TMP would be developed to include various strategies to minimize delay during construction. (see Traffic measures.) | Section 3.5.3 | Traffic Engineer | Design | | | | | | |
| Emergency providers and law enforcement officials would be informed of all detours to avoid or minimize increases in response times. | Section 3.5.3 | Public Information Officer / Resident Engineer | Construction | | | | | | |
| All applicable regulations regarding solid waste would be complied with as related to construction. | Section 3.5.3 | Resident Engineer | Construction | | | | | | |
| Coordination with the appropriate utility owners would occur during final design and construction to finalize relocation efforts. | Section 3.5.3 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Impacts to resources would be avoided when utilities are relocated, and Environmentally Sensitive Areas (ESAs) would be delineated when working near sensitive areas to prevent construction activities from impacting resources. | Section 3.5.3 | Design Engineer / Biologist / Resident Engineer | Design / Construction | | | | | | |
| **Traffic & Transportation/Pedestrian & Bicycle Facilities** | | | | | | | | | |
| Construction would be phased to minimize traffic delays. | Section 3.6.4.1 | Design Engineer / Traffic Engineer / Resident Engineer | Design / Construction | | | | | | |
| A comprehensive TMP to minimize traffic delays and closures through the use of various traffic handling practices during construction would be developed after selection of a preferred alternative but prior to the start of construction. Traffic delays would be controlled to the extent feasible during periods of many simultaneous construction operations. The TMP is designed to increase driver awareness, ease congestion, and minimize delay during construction. Many TMP components would be implemented prior to construction and could continue after construction with local funding. The components of the TMP would be: | | | | | | | | | |

| Task and Brief Description | Reference | Responsible Branch / Staff | Timing / Phase | NSSP, SSP, Std Spec, | Action Taken to Comply/Remarks | Task Completed | | Env. Compliance | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Date | Initial | Date |
| Public Awareness Program: Strategies that would be considered to increase public awareness may include one or more of the following items:<br>· Mailings – construction bulletins, newsletters, public notices<br>· Speakers bureau<br>· Public service announcements: radio, television, and newspapers<br>· Paid advertising<br>· Signs along roadway: changeable message signs<br>· Telephone information line, hotline, "800" number<br>· Updates to local businesses<br>· Webpage<br>(Traffic continued)<br>Traffic Operations Strategies Program: This would include ongoing evaluation of traffic operations and would provide for incident response during construction. Strategies that would be considered may include one or more of the following items:<br>· TMP evaluation and adjustment<br>· Alternate route strategies<br>· Construction Strategies, including lane closure charts for closing lanes, ramps, and connectors<br>· Delay clauses for the late re-opening of lane closures<br>· Temporary signal location<br>· California Highway Patrol enforcement of construction zone speed limits during lane closures<br>· Freeway Service Patrol<br>· Demand Management strategies, including improvement to HOV/Managed Lanes and public transit | Section 3.4.1.4, Section 3.5.3, and Section 3.6.4.1 | Traffic Engineer / Design Engineer / Public Information Officer / Resident Engineer | Design / Construction | | | | | | |
| The TMP would include components for pedestrians and bicyclists along with consideration for the motoring public. As well as the items listed for the motoring public, signs would be used, as appropriate, to provide notices of bike and pedestrian closures, detours and other pertinent information. Temporary access would be provided where possible. | Section 3.6.4.2 | Traffic Engineer / Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| **Visual Aesthetics** | | | | | | | | | |
| Visual mitigation would consist of adhering to design requirements in consultation with the District 11 DLA and following the Design Guidelines: I-5 NCC Project. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| AES-1a During project design and construction, the DLA will analyze the visual effects of specific project features, synthesize applicable mitigation measures from this document and the Design Guidelines: I-5 NCC Project, apply those requirements to actual design features in specific locations, and submit proposals to the project design team. The team and DLA will then develop design solutions considered to be reasonable visible mitigation solutions that achieve team consensus, and can in turn be implemented. The DLA also will provide technical assistance during construction and perform mitigation monitoring of all visual mitigation requirements. | Section 3.7.4 | Design Engineer / Landscape Architect / Resident Engineer | Design / Construction | | | | | | |

**Environmental Generalist: Shay Lynn M. Harrison**
**Phone: (619) 688-0190**

AES-1a. (Cont'd)

| Task and Brief Description | Reference | Responsible Branch / Staff | Timing / Phase | NSSP, SSP, Std Spec, | Action Taken to Comply/Remarks | Task Completed | | Env. Compliance | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Initial | Date | Initial | Date |
| Caltrans will consult with the property owners and/or officials with jurisdiction over recreational areas during project design for potential aesthetic options, as applicable. During the design process, shareholder interaction will continue, guidelines will become more and more specific, locally oriented design details will be added, and a design palette of specific features and products will be developed. | Section 3.7.4 | Design Engineer / Landscape Architect / Resident Engineer | Design / Construction | | | | | | |
| Mitigation measures that require regular maintenance and are located outside Caltrans right-of-way, such as trees planted along local streets, or measures that require the installation of non-standard equipment within the right-of-way such as pedestrian bridge lighting, can be implemented only if the responsible local government would be willing to maintain them in perpetuity. | Section 3.7.4 | Project Management | Design | | | | | | |
| **SOUNDWALLS** | | | | | | | | | |
| Wherever possible, noise barriers should consist of landscaped berms. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| A retaining wall may be used to avoid constructing a soundwall on top of a berm. This may result in a barrier with a lower profile than a noise berm/wall combination due to the berm's superior sound attenuation qualities. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In situations where a tall retaining wall at the toe of slope would create a visual impact to an adjacent property, a berm with a 1:2 slope on the freeway side that is 6 ft high (minimum) and screening shrubs would be used. This size berm should allow enough space to provide screening shrubs in front of the wall. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In areas too narrow to place a planting pocket, the soundwall would be recessed behind the face of barrier at a sufficient distance to allow architectural features to be included on the face of the soundwall. Placing a soundwall directly on top of a concrete barrier should be avoided if at all possible. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Whenever possible, soundwalls would incorporate planting on both sides. In some cases, retaining walls and/or a concrete barrier at the edge of the shoulder may be needed to provide the required planting space. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In some areas, the use of setbacks and return sections in wall layouts would be used. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| In cases where the right-of-way is narrow, a minimum 5-ft wide planting area would be provided between the back of the barrier and the face of the soundwall. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| In areas where space for architectural detailing does not exist, vertical concrete safety barriers would be considered. Vertical barriers add 12 in of additional width in which architectural elements such as pilasters and wall caps can be included. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In situations where noise receptors are located above the elevation of the freeway, transparent soundwalls located at the top of slope on the right-of-way line or on private property would be used if the benefited property owner agrees to maintain wall surfaces. Locating walls at higher elevations nearer receptors substantially reduces the height of walls to achieve "line of sight" noise reductions. | Section 3.7.4 | Design Engineer | Design | | | | | | |

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| If possible, translucent materials would be placed on top of soundwalls to reduce their apparent height and create a greater sense of openness. Translucent materials should be placed above areas of potential vehicle impact, out of easy reach, and should consist of vandal-resistant materials. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| **Architectural Detailing** - Soundwalls would be designed to be visually compatible with the surrounding community. Architectural detailing such as pilasters, wall caps, interesting block patterns, and offset wall layouts would be used to add visual interest and reduce the apparent height of the walls. Poured-in-place integrally colored concrete construction techniques would be encouraged where visual consistency with retaining walls is desired. Enhanced surface materials such as mosaic tile and weathering steel would also be used where appropriate. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| **RETAINING WALLS** | | | | | | | | | |
| Retaining walls that follow the contours of the topography and maintain a constant elevation at the top of wall shall be used where appropriate. Wall layouts and profiles should be composed of long radius curves, with no tangents or points of intersection. Wall faces should be battered at a 1:6 horizontal/vertical ratio. Walls should be located at mid-slope. This type of wall is visually compatible with surrounding terrain and provides room at the base for a slope that contains landscape screening. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Where appropriate, retaining walls over 19.7 ft in height would be divided into separate structures sufficiently offset from one another to create a planting area between the two. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Whenever possible, retaining walls would be located at mid slope in cut sections to provide a buffer area for landscape screening between the wall and the freeway. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Wherever possible, retaining walls would be located at the top of slope in fill sections to provide a buffer area for landscape screening between the wall and the community. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In areas where insufficient space exists to include planting buffers between freeway retaining walls and adjacent community features such as frontage roads, the use of viaduct retaining walls would be considered. Viaduct retaining walls would cantilever the roadway to form a wall recess in which spatial articulation and planting can occur. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In areas where retaining walls must be placed close to the traveled way, space would be reserved between the wall and the safety barrier to include a 5-ft wide planting pocket. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In areas too narrow to place a planting pocket, the retaining wall would be recessed behind the face of barrier at a sufficient distance to allow architectural features to be included on the face of the retaining wall. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In areas where space for architectural detailing does not exist, vertical concrete safety barriers would be considered. Vertical barriers add 12 in of additional width in which architectural elements such as mechanically stabilized earth wall panel relief, pilasters, and wall caps can be included. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |

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| Wall faces would be battered at a 1:6 maximum horizontal/vertical ratio wherever possible to reduce the apparent scale of the wall and give the wall a more natural appearance. The batter also can serve as a barrier safety shape where the base of wall exhibits a smooth surface facing traffic. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Alternatives to standard cable rail barrier would be used to complement enhanced wall designs. Options would include integral solid concrete parapets or alternative metal materials. Design details are contained in the Design Guidelines: I-5 NCC Project. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Architectural features, textures and integral concrete colors would be used to mitigate the appearance of retaining wall surfaces. Walls would incorporate architectural features such as pilasters and caps to provide shadow lines, provide relief from monolithic appearance, and reduce their apparent scale. Enhanced surface materials such as mosaic tile and weathering steel would also be used where appropriate to meet community design goals. Design details are contained in the Design Guidelines I-5 NCC Project. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Mechanically stabilized earth (MSE) walls can have custom designed panels that include integral color and enhanced surface texture, and a minimum 4-in reveal on each panel. Placement of landscaped slopes, soundwalls, barriers, drainage conveyances, and other roadway features can require special design. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Low profile (e.g., Caltrans Type 60S) or see-through (e.g., Caltrans Type 80) safety barriers would be used if at all possible in areas where standard height barriers would diminish views of scenic resources from the freeway. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| **OVERCROSSING, UNDERCROSSING, BRIDGE, AND DAR STRUCTURES** | | | | | | | | | |
| Bridge type selection and all other structure design should be consistent with the design themes contained in the Design Guidelines: I-5 NCC Project. Some mitigation features may be new or nonstandard and require approvals or design exceptions. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| AES-1b Wherever possible, abutments would be short seat abutments placed at the top of slopes. The visual mass of abutments would be minimized as much as possible. High cantilever abutments would be used in locations where space does not exist for short seat abutments at the top of a slope. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| At each overcrossing, bridge abutments would be of the same type to produce a symmetrical appearance. Where overcrossing structures are replaced, high cantilever abutments would be used in lieu of secondary tie-back walls. Temporary tie back walls would be terrain-contoured walls and would receive architectural features consistent with permanent walls in the viewshed. Temporary tie-back walls would be removed when overcrossing structures are reconstructed. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In locations where retaining walls must be incorporated into abutments, they would be designed as terrain-contoured walls if possible, and located away from the edge of shoulder to allow space for a planted buffer at their base. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |

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| Slope paving would be enhanced with integral concrete color, texture, and deeply textured facing materials such as veneer block or natural rock. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Bridge signage would be designed to visually integrate with bridge architecture. Concrete sign pedestals would be consistent in appearance with bridge design themes. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Sidewalks would be provided on both sides of each overcrossing. They would have a 6-ft minimum width on a two-lane structure with a curb-to-curb width of 32 ft or less. On wider streets, both sidewalks would be a minimum of 10 ft in width. Sidewalk widths would be selected based on SANDAG regional guidelines (*Planning and Designing for Pedestrians* , June 2002) and local pedestrian design guidelines. Where possible, sidewalks would receive score patterns, surface texture, and/or integral color. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Wherever possible, low profile barrier separations between pedestrian and vehicular traffic would be provided on overcrossings where Caltrans policy prohibits or restricts architectural features and pedestrian amenities on or near concrete bridge rails. Sidewalks in these locations would be a minimum of 10 ft in width. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Pedestrian lighting, enhanced fencing and railings, and other urban amenities would be provided on each overcrossing whenever feasible. Local agency streetscape design guidelines would be continued within Caltrans right-of-way at each overcrossing and interchange whenever feasible. Container trees located on structures would also be provided in locations where the responsible local agency has requested them and agreed to maintain them in perpetuity. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Where possible, bicycle shoulders, lanes, or paths would be provided on both sides of each overcrossing. A minimum shoulder width of four ft would be provided for Class III facilities. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Bridge abutments should be of the same type on all four quadrants to give widened undercrossings a symmetrical appearance. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Bridge widening should be done using box girder construction wherever possible. Girders should be similar in appearance on both sides of the bridge to produce a symmetrical appearance. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| In locations where street widening occurs, tie-back walls should be terrain-contoured walls, and receive architectural features consistent with those required for retaining walls and with community values and goals. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Pedestrian 10 ft in width (minimum) should be provided at undercrossings on both sides of the street wherever possible. In all cases, existing sidewalk configurations on local streets would be continued across Caltrans right-of-way. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Bicycle shoulders, lanes, or paths should be provided at each undercrossing. The type of facility would consider regional and local planning goals. A minimum shoulder width of 4 ft should be provided for Class III facilities. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Enhanced pedestrian lighting including bridge soffit lighting should be provided at each undercrossing. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Slope paving at undercrossings should be enhanced with deeply textured facing materials such as scored veneer block or natural rock to add visual interest and deter graffiti. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |

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| Mitigation measures listed for overcrossing and undercrossing structure symmetry, abutment design, tie-back walls, slope paving, sidewalks, bicycle routes, and streetscape features would also apply to freeway bridges as appropriate. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| See-through bridge rails such as Caltrans Type 80 rail should be used on freeway bridges with views to ocean, rivers, lagoons, or other scenic resources, unless noise abatement is necessary. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Pedestrian overcrossings should be a minimum of 15 ft in width. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Pedestrian lighting, enhanced fencing, railings, architectural features, and other urban amenities should be provided on each pedestrian overcrossing. Existing streetscape elements and design themes would be continued within Caltrans right-of-way. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| DAR retaining walls should have a 15-ft maximum height, allowing approximately 10 ft of minimum vertical clearance under the connecting ramp structure. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Pedestrian and bicycle traffic on existing overcrossings to be converted to DAR overcrossings should be routed to a separate pedestrian overcrossing structure in the immediate vicinity, if possible. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| On structures where pedestrians are present, sidewalks should be 15 ft in width on each side. Bridge barriers, fences, and sidewalks should be designed to provide standard stopping sight distance at DAR termini to enable pedestrians to be visible to drivers. Barrier separations between pedestrian and vehicular traffic should be provided if Caltrans policy requires bridge barriers to adhere to freeway crash standards. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Bicycle shoulders, lanes, or paths should be provided on both sides of each DAR overcrossing open to non-vehicular traffic. The type of facility would consider regional and local planning goals. A minimum shoulder width of four ft ) should be provided for Class III facilities. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Pedestrian lighting, enhanced fencing and railings and other urban amenities should be provided on each DAR local street overcrossing and be consistent with local values and goals. Existing streetscape elements and design themes should be continued within Caltrans right-of-way at each DAR overcrossing. Local streetscape guidelines should be followed. Enhancements or enhancement features such as decorative lighting and street furniture would be incorporated if local agencies accept permanent maintenance responsibility. Container trees located on structures should also be provided in locations where the responsible local agency has requested them and agreed to maintain them in perpetuity. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| **FREEWAY INTERCHANGES** - Continuity of street and pedestrian facilities should be maximized wherever possible by converting existing non-stop freeway ramp entries and exits to ramp termini placed perpendicular to the street. The use of roundabouts should also be considered to create a more balanced relationship between interchange and community by decreasing required roadway width. | Section 3.7.4 | Design Engineer | Design | | | | | | |

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| Establishment of a continuous pedestrian realm on both sides of local streets as they pass through the interchange should be accomplished by utilizing design features such as street trees, pedestrian lighting, landscaped parkways located between sidewalk and curb, enhanced sidewalk paving that continues across freeway ramps, and islands of refuge in street and ramp medians. Pedestrian and transit facilities should conform to SANDAG Pedestrian Design Guidelines and any applicable local streetscape design standards and guidelines. Urban design features such as benches, bollards (short posts to divert or exclude automobiles), directional signage, and trash receptacles should also be included as appropriate. Specific guidelines and/or specific interchange streetscape plans were developed as part of Design Guidelines: I-5 NCC Project. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Bicycle facilities should be preserved or upgraded to conform to the San Diego Regional Bike Plan, applicable local standards, and General Plan circulation element goals. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Interchange landscaping should reflect the visual character and goals of its locality. Enhanced interchange landscaping should be considered in cases where the responsible local agency would provide maintenance in perpetuity. Entry features should be included as transitional visual elements into local communities where appropriate. Traditional decorative entry signage with text should not be used. Specific interchange landscape themes may be developed as part of the Design Guidelines: I-5 NCC Project. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Detention basins located at freeway interchanges or in areas of high visibility should incorporate the following design features. Basins would be located at least 10 ft from free recovery areas whenever possible to allow landscape screening to be installed. Basins should appear to be natural landscape features such as dry streambeds or riparian areas. Where possible they should be shaped in an informal, curvilinear manner, incorporate slope rounding, variable gradients, and be similar to the surrounding topography to deemphasize a defined outer edge. Maintenance access drives should be located in unobtrusive areas away from local streets and would consist of inert materials or herbaceous groundcover that is visually compatible with the surrounding landscape. All visible concrete structures and surfaces should be of special design and adhere to the Design Guidelines: I-5 NCC Project. Rock slope protection would consider use of aesthetically pleasing whole material of various sizes. Standpipes and other vertical appurtenances should be placed in unobtrusive locations and be painted an unobtrusive color. Where possible, bio-swales should be | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |

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| The use of Caltrans standard freeway appurtenances on local streets should be avoided or minimized wherever possible. Crash cushions, metal beam guardrail, end anchor assemblies, concrete barriers, sign standards, light standards, signal standards, and chain-link fencing are examples of such features that are addressed in the Design Guidelines: I-5 NCC Project. The use of access control fencing at interchanges should be minimized and located in unobtrusive locations when its use is necessary. Electrical control cabinets and other utility boxes should be located in unobtrusive locations away from sidewalks wherever possible. Raised medians should be used wherever possible to allow for pedestrian islands of refuge, create a visual break in the ground plane, and provide space for street tree planting. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| **MANCHESTER AVENUE TRANSIT CENTER** - Site amenities for transit users should be provided; such as covered bus shelters, pedestrian lighting, benches, litter receptacles, tree grates, bollards, and bicycle racks. Landscaping and enhanced pedestrian paving would be an integral part of the station features. A sidewalk 10 ft in width should be provided along the west side of the transit center access road from the bus platform to Manchester Avenue. It should be located 6 ft from the back of curb to create a landscaped parkway. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| **Freeway Landscape** | | | | | | | | | |
| The Design Guidelines: I-5 NCC Project contain a landscape concept plan for the project. In general, freeway landscaping would utilize California native plants. The landscape design would be consistent with the character of adjacent community landscape. In communities that are characterized by ornamental landscaping, freeway landscaping would include native plants with an ornamental appearance in an enhanced design. Trees, shrubs, and groundcover would be installed. In less-developed areas of the corridor, drought-tolerant native trees and shrubs would be planted in an informal design. Areas adjacent to native habitat would receive native plantings and hydroseed. Landscape plantings adjacent to habitat would be designed in consultation with the District Biologist. Landscaped areas would be irrigated with an underground automatic system. Reclaimed water would be used wherever possible. A thorough weed abatement/exotic removal program would be implemented prior to hydroseeding and continue through plant establishment. | Section 3.7.4 | Design Engineer / Landscape Architect / Biologist | Design | | | | | | |
| All landscaped areas would be irrigated with an underground automatic system. | Section 3.7.4 | Design Engineer / Landscape Architect / Biologist | Design | | | | | | |

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| Since the project would result in the loss of a majority of existing landscaped roadside areas, steps should be taken to create new areas for mitigation replacement planting within the freeway facility at the edge of shoulder, between concrete median and separator barriers, or between barriers and walls wherever the available width allows. Minimum widths for planting are 2 ft between barrier and wall, and 6 ft between median or separator barriers. Where possible, safety barriers at the edge of shoulder should facilitate tree and shrub planting in roadside areas that are too narrow to allow standard free recovery area planting setbacks to be used. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Existing median oleanders would be preserved wherever possible. Since freeway widening would disturb the roots of existing plants, the following measures would be implemented. A new automatic irrigation system would be installed in the median and the oleanders would be irrigated and fertilized on a regular basis before, during, and after project construction. The oleanders would be watered, fertilized, and pruned under the direction of a certified arborist prior to the commencement of median grading. The oleanders would remain in place undisturbed during construction. Existing non-vigorous oleanders would be replaced with new oleanders planted from certain containers at the direction of the Resident Engineer. Oleanders that do not survive during construction or plant establishment would be replaced using oleanders planted from containers. Existing weeds and volunteer plants within the median would be removed. A plant establishment period of one year would be provided. Following plant establishment, a mitigation monitoring period of three years would be implemented to ensure plant survival. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| In locations where freeway widening brings traffic into close proximity to parallel local streets such as Ida Avenue in Solana Beach, Villa Cardiff Drive, Devonshire Drive, Orpheus Avenue, and Piraeus Street in Encinitas; Avenida Encinas in Carlsbad; and Brooks Street, Garfield Street, and Buena Street in Oceanside, landscape buffers would be created between the freeway and street. Buffers would include elements such as street trees and shrubs, sidewalks, and solid screen walls for access control. Inclusion of some buffers may require local street widths to be adjusted. Implementation of this mitigation measure is contingent on local agency approval and commitment to maintain the streetscape buffer in perpetuity. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Slopes shall be graded 1:2 or flatter to support planting and irrigation. Steeper slopes may be possible if they are serrated and contain benches wide enough to accept plants from #15 containers. Grading should utilize techniques such as slope rounding, slope sculpting, and variable gradients to approximate the appearance of natural topography. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Implement signage, lighting, and miscellaneous freeway feature mitigation designs as detailed in the Design Guidelines: I-5 NCC Project. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Lighting and signage pedestals on structures should be placed at pilasters or be incorporated in other architectural features, where possible. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |

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| Freeway lighting and signage should conform to the Design Guidelines: I-5 NCC Project, including directing lighting away from sensitive habitats and reducing glare,. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Concrete lighting and signage pedestals should be designed in such a way that vertical barrier transitions are not required. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Electrical and signal equipment at ramp termini should be placed in visually unobtrusive locations. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Median barriers would receive integral concrete color and the application of a heavy sandblast texture to barrier surfaces visible from the freeway. Heavy sandblast texture would create an irregular surface relief to a depth of 3/8 in. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Narrow landscape areas beyond the gore would be paved for worker safety. Paving would incorporate a tan color and rough surface texture consistent with corridor design themes. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Signage with movable elements or self-illuminated features such as changeable message signs would be excluded from viewsheds containing scenic resources if at all possible. The DLA would assist in the placement of all such signage. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Access control fencing shall be placed in visually unobtrusive locations of interchanges and bridges where possible. It is recommended that it be of special design and consist of enhanced materials where appropriate and maintained by the responsible local agency in perpetuity. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Where possible, retaining walls and soundwalls near right-of-way boundaries would be designed in such a way that access control fencing would not be needed. The “dead” spaces that occur between walls and fences would be avoided if at all possible. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Concrete interceptor ditches would not be placed adjacent to residential property, at interchanges, or adjacent to pedestrian use areas if at all possible. Alternatives such as subterranean drainage placed below finish grade or planted geo-reinforced drainage surfaces would be used. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| Detention basins located in areas visible to the public would incorporate the same mitigation features required for basins located at interchanges. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Bio-swales and linear drainage ditches would be designed to appear as natural features and incorporate applicable mitigation measures listed above for detention basins. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Concrete drainage devices located in areas of high visibility would be located, designed, and colored to be unobtrusive in appearance. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| Soft surface or segmented hard surface plantable alternatives to concrete ditches and rock slope protection would be utilized in all project areas visible to the public, where possible. | Section 3.7.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| The use of pervious concrete for storm water pollution prevention should be considered. Project features such as interceptor ditches, inlet aprons, gutters, maintenance access roads, maintenance vehicle pullouts, and parking lots could consist of pervious concrete and perhaps reduce the project footprint. | Section 3.7.4 | Design Engineer | Design | | | | | | |

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| Real estate parcels in whole or in portion that are purchased for freeway widening but not required for use as permanent State right-of-way would be considered as potential opportunities for community pocket parks or public open space. This would be considered at the request of the responsible local agency and relinquished to them to maintain in perpetuity. | Section 3.7.4 | Design Engineer / Landscape Architect | Design / ROW Acquisition | | | | | | |
| Existing overhead utilities that are located near the freeway and requiring relocation due to freeway widening would be relocated underground where possible. | Section 3.7.4 | Design Engineer | Design | | | | | | |
| **Cultural Resources** | | | | | | | | | |
| Caltrans will undertake efforts to avoid causing impacts to archaeological sites. Prior to construction, a Cultural Resources Treatment Plan will be developed. This plan will include an Archaeological Monitoring Area (AMA) Action Plan and an ESA Action Plan. Combined, these plans shall delineate AMA and ESA locations where a "qualified" archaeological monitor and a Native American monitor will be present during construction, identify the individuals involved, and their roles and responsibilities. | Section 3.8.4 | Cultural | Pre Construction | | | | | | |
| AMA and ESAs will be depicted on the design/construction plans. A letter will be sent to the Resident Engineer's file, along with a copy of the AMA and ESA Action Plan. The archaeologist and Native American monitor would be present at the preconstruction meeting. | Section 3.8.4 | Design/ Cultural/Construction | Pre Construction | | | | | | |
| The archaeologist and Native American monitor will work with Caltrans Construction Liaison to accurately delineate the boundaries of those sites requiring the establishment of ESAs. Fencing will be placed around ESA sites, as appropriate. ESA sites will be avoided by all construction activity. | Section 3.8.4 | Cultural/ Environmental Stewardship | Pre Construction/ | | | | | | |
| A "qualified" archaeological monitor and a Native American monitor will be present at AMA and ESA locations during construction activities. | Section 3.8.4 | Cultural/ Construction | Construction | | | | | | |
| The construction contract will contain language related to unanticipated discoveries should they be made during construction, including diverting activities away from such finds until an archaeologist could assess their nature and significance. If unanticipated discoveries occur, Section 106 consultation with the SHPO would be reopened, if appropriate. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find. | Section 3.8.4 | Design/ Cultural/ Construction | Construction | | | | | | |

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CR-1 (cont'd)

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| If unanticipated human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities would cease in any area or nearby area suspected to overlie remains, and the County Coroner would be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the Coroner would notify the Native American Heritage Commission (NAHC), who would then notify the Most Likely Descendant (MLD). At the same time, the person who discovered the remains would contact the District 11 Chief of the Environmental Resources Branch so that they could work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 would be followed, as applicable. | Section 3.8.4 | Design/ Cultural/ Construction | Construction | | | | | | |
| **Hydrology and Water Quality** | | | | | | | | | |
| The structures over Los Peñasquitos Creek would be designed to entirely span the floodplain. | Section 3.9.4 | Design Engineer | Design | | | | | | |
| The replacement of the Sorrento Valley Road Culvert would remove an existing constriction point in Carmel Valley Creek and lower the base floodplain. | Section 3.9.4 | Design Engineer | Design | | | | | | |
| The replacement of the Batiquitos Lagoon Bridge would reduce an existing constriction point in the lagoon and lower the base floodplain. | Section 3.9.4 | Design Engineer | Design | | | | | | |
| Standard engineering practices would be used, where feasible, to facilitate drainage. | Section 3.9.4 | Design Engineer | Design | | | | | | |
| The area affected by construction would be limited through utilization of barriers or fences to protect sensitive areas. | Section 3.9.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| ESAs would be designed to demarcate and protect floodplain habitats. | Section 3.9.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Best Management Practices (BMPs) would be implemented to control erosion and runoff and address potential Water Quality impacts during the planning and design, construction, and operational stages. | Sections 3.9.4 and 3.10.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Caltrans would implement a program, defined by the Statewide Storm Water Management Plan (SWMP), to reduce the discharge of pollutants to the storm water drainage systems that serve the highway and highway-related properties, facilities, and activities. | Section 3.10.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Complete a Storm Water Data Report (SWDR), which summarizes the storm water decisions made by the Project Development Team, at the beginning of the project and update the SWDR as the project progresses through design. In the final SWDR, include exhibits showing tributary drainage areas, percentages of "treatment," water quality impairments and types of design pollution prevention, construction and maintenance BMPs that will be incorporated into the project. | Section 3.10.4 | Design Engineer | Design | | | | | | |
| Short-term impacts to water quality during the construction phase would be prevented/minimized through the use of Construction Site BMPs, as required under the Construction General Permit. A combination of erosion and sediment control BMPs would be used to address both storm water and non-storm water discharges during construction. Construction Site BMPs that would be implemented as appropriate for the project cover the following categories:<br>· Temporary Soil Stabilization | Section 3.10.4, Caltrans | Design Engineer / | Design / | | | | | | |

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| · Temporary Sediment Control<br>· Wind Erosion Control<br>· Tracking Control<br>· Non-Storm Water Management<br>· Waste Management and Materials Pollution Control<br>More information on the various types of BMPs covered under each one of these categories is found in Caltrans Construction Site BMPs Manual. | Construction Site BMPs Manual | Resident Engineer | Construction | | | | | | |
| Long term impacts during Caltrans operation and maintenance of its facilities would be prevented/minimized through the use of Design Pollution Prevention (DPP) BMPs, Treatment BMPs, and Maintenance BMPs. | Section 3.10.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Maintenance BMPs would be ongoing for the life of the facility, and are required to be conducted in accordance with the Caltrans Storm Water Quality Handbook, Maintenance Staff Guide (Guide). | Section 3.10.4 | Design Engineer / Resident Engineer / Operations | Design / Construction / Post-construction | | | | | | |
| The peak flow rate, runoff velocities, and erosive characteristics of the soils in the area would be assessed with regard to downstream watercourses to determine potential impacts and appropriate mitigation, if required. | Section 3.10.4 | Design Engineer | Design | | | | | | |
| The project would preserve the existing vegetation outside the work areas, stabilize slopes with vegetative cover, and keep the total paved area to a practical minimum. | Section 3.10.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| DPP BMPs would be implemented to prevent downstream erosion, stabilize disturbed soil areas, and maximize vegetated surfaces consistent with Caltrans policies. The selection of the specific DPP BMPs is an iterative process that begins at the planning stages and is refined during the design phase. DPP BMPs that would be implemented as appropriate for the project include:<br>· Consideration of Downstream Effects Related to Potentially Increased Flow<br>· Preservation of Existing Vegetation<br>· Concentrated Flow Conveyance Systems<br>o Ditches, Berms, Dikes, and Swales<br>o Overside Drains<br>o Flared Culvert End Sections<br>o Outlet Protection/Velocity Dissipation Devices<br>· Slope/Surface Protection Systems<br>o Vegetated Surfaces<br>o Hard Surfaces | Section 3.10.4 | Design Engineer/ Resident Engineer | Design / Construction | | | | | | |
| Review and propose low impact development (LID) features throughout the project footprint. Final selection will be made during final design once drainage, grading and other design features are determined and used as a basis for feasibility and siting locations. Features that function as LID measures include, but are not limited to:<br>· Surface vegetation, such as biofiltration swales and strips<br>· Soil amendments, such as compost and surface roughening<br>· Subsurface storage, such as dry-wells, infiltration trenches, or swales underlain with permeable soil layers<br>· Small detention areas, such as cisterns, traps, and check dams | Section 3.10.4 | Design Engineer | Design | | | | | | |

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| · Pervious materials, such as paving stone and porous concrete, when used in lieu of impervious materials at locations outside the highway prism<br>· Disconnected drainage that relies upon overland flow rather than pipe networks to convey runoff to discharge locations<br>· Contour Grading, grading that follows natural flow paths and terrain with an emphasis upon slope rounding and gradual elevation changes. | | | | | | | | | |
| In conformance with the recently adopted statewide permit (Order 2012-0011-DWQ- effective date of July 1, 2013), conduct a risk-based approach to ensure the project would not cause a decrease in lateral (bank) and vertical (channel bed) stability in receiving stream channels. Assess pre-project channel stability and implement mitigation measures that are appropriate to protect structures and minimize stream channel bank and bed erosion. Include discussion of hydromodification as well as LID and other BMPs in the SWDR. | Section 3.10.4 | Design Engineer | Design | | | | | | |
| Treatment BMPs are required under the SWMP to prevent or minimize the long-term potential impacts from Caltrans facilities or activities. The following approved treatment BMPs are considered to be technically and fiscally feasible for all of the build alternatives:<br><br>· Biofiltration Systems<br>· Infiltration Devices<br>· Detention Devices<br>· Dry Weather Flow Diversions<br>· Gross Solid Removal Devices<br>· Multi-Chambered Treatment Train<br>· Wet Basin<br>· Traction Sand Traps<br>· Media Filters | Section 3.10.4 | | | | | | | | |
| Preliminary locations of some of the treatment BMPs are shown on the Project Features Maps (*Figures 2-3.3, Sheets 1* through *68*). If the proposed project proceeds to the design phase, the locations of these treatment BMPs would be further evaluated to determine feasibility in relation to right-of-way limitations, environmental constraints, or hydraulic capacity. In areas where treatment BMPs cannot be incorporated due to above mentioned reasons, vegetation would be maximized and every effort would be made to ensure the successful establishment of landscaping and erosion control throughout the project limits. The project would also consider any future treatment BMPs that might be approved by Caltrans from the ongoing research and monitoring program. | Section 3.10.4 | Design Engineer / Landscape Architect | Design | | | | | | |
| The District Erosion Control Specialist, in coordination with the project Biologist and Landscape Architect, would determine the appropriate planting/seeding mix to ensure that proposed vegetation is consistent with existing vegetation within the corridor, as well as any specific requirements by local entities. | Section 3.10.4 | Design Engineer / Landscape Architect / Biologist | Design / Construction | | | | | | |

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| Minimization measures would be implemented during construction at crossings over six designated "navigable" waterways. Minimization measures at waterways can typically include, but are not limited to: flagging the perimeter of the proposed impact area to restrict access; training all contractors and construction personnel on sensitive resources, such as navigable vessel use; scheduling construction outside of breeding season(s) or conducting pre-construction surveys for presence/absence of sensitive species; restricting equipment, material storage, and staging to disturbed areas; designing the project to avoid/reduce storm water impacts where feasible, or otherwise control sediment with silt fencing, gravel bags, hay bales, and fiber rolls; controling fugitive dust; restricting changing oil and/or refueling to designated areas; constructing velocity dissipation structures at drainage outlets; directing all lighting to the construction area during night time construction; and temporarily diverting water around the work area by use of sandbags, gravel dams, or cofferdams. | Section 3.10.4 | Design Engineer / Biologist / Resident Engineer | Design / Construction | | | | | | |
| This project will be designed and constructed in compliance with State Water Resources Control Board adopted Order No. 2012-0011-DWQ NPDES No. CAS000003 National Pollutant Discharge Elimination System (NPDES) permit. The permit became effective on July 1, 2013. | | Contractor / District Construction Storm Water Coordinator (DCSWC) / Resident Engineer | Constrution | | | | | | |
| This project will be constructed in compliance the State Water Resources Control Board issued the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ (NPDES No. CAS000002 commonly called the Construction General Permit (CGP)), on September 2, 2009. The permit became effective on July 1, 2010 | | Contractor / District Construction Storm Water Coordinator (DCSWC) / Resident Engineer | Constrution | | | | | | |
| Final stabilization will be achieved according to NPDES permit and verified by the District Construction Storm Water Coordinator. The Notice of Termination (NOT) will be prepared and submitted through SMARTS to the State Water Board. | | Contractor / District Construction Storm Water Coordinator (DCSWC) / Resident Engineer | Constrution | | | | | | |
| **Geology / Soils / Seismic / Topography** | | | | | | | | | |
| For preliminary design purposes, soils at all the lagoons and river valleys would be assumed to be predisposed to liquefaction. | Section 3.11.4 | Design Engineer | Design | | | | | | |
| The use of large retaining structures to accommodate embankment widening over the lagoons would be avoided when possible. | Section 3.11.4 | Design Engineer | Design | | | | | | |
| Drainage for proposed improvements would be constructed in accordance with Caltrans Highway Design Manual. | Section 3.11.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Impacts to water quality would be minimized by directing surface runoff away from the top of slopes, and also by not allowing runoff to discharge over the top of slopes. | Section 3.11.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Surface water would be conveyed offside by appropriate erosion-reducing devices. | Section 3.11.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |

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| Where groundwater is present, subsurface drainage devices would be installed, if applicable. | Section 3.11.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Settlement waiting periods would be employed at all soft soil locations before establishment of the final grade. | Section 3.11.4 | Resident Engineer | Construction | | | | | | |
| Caltrans personnel would be present during project construction to observe all cuts, foundation subgrade, and embankment subgrade to assure that all appropriate provisions are enforced. If unanticipated subsurface conditions are encountered, a geotechnical representative would be notified to make additional recommendations to the Resident Engineer, who in turn would direct the contractor. Instrumentation for measuring settlement or slope distress, and periodic surveying for ground movement, would be included during construction in areas where the potential for ground movement or failure exists. | Section 3.11.4 | Resident Engineer | Construction | | | | | | |
| Grading and roadway work would be performed in accordance with Caltrans Standard Plans and Specifications. | Section 3.11.4 | Resident Engineer | Construction | | | | | | |
| To avoid surface erosion, which may supply an unacceptable sediment load to the watershed, temporary slopes would not be left unprotected throughout the wet season. | Section 3.11.4 | Resident Engineer | Construction | | | | | | |
| Concentrated flows would not be allowed on slopes. | Section 3.11.4 | Resident Engineer | Construction | | | | | | |
| Appropriate construction scheduling, soil trackifers, geosynthetic mats, and plastic sheeting are some of the techniques that may be used to avert excessive slope erosion. | Section 3.11.4 | Resident Engineer | Construction | | | | | | |
| **Paleontology** | | | | | | | | | |
| A qualified principal paleontologist (M.S. or Ph.D. in paleontology or geology familiar with paleontological procedures and techniques) would be retained to be present at pre-grading meetings to consult with grading and excavation contractors. | Section 3.12.4 | Paleontologist | Construction | | | | | | |
| A paleontological monitor, under the direction of the qualified principal paleontologist, would be on site to inspect cuts for fossils at all times during original grading involving sensitive geologic formations. | Section 3.12.4 | Paleontological Monitor | Construction | | | | | | |
| When fossils are discovered, the paleontologist (or paleontological monitor) would recover them. Construction work in these areas would be halted or diverted to allow recovery of fossil remains in a timely manner. | Section 3.12.4 | Paleontologist / Paleontological Monitor | Construction | | | | | | |
| Fossil remains collected during the monitoring and salvage portion of the mitigation program would be cleaned, repaired, sorted, and cataloged. | Section 3.12.4 | Paleontologist / Paleontological Monitor | Construction | | | | | | |
| Once the grading plan is finalized, the types, depth, and locations of the construction activities would be analyzed to finalize the Paleontological Mitigation Monitoring Plan (PMMP), prepared by a qualified principal paleontologist. | Section 3.12.4 | Design Engineer / Paleontologist | Design | | | | | | |
| A Paleontological Mitigation Monitoring Report (PMMR) would be prepared to document the results of the PMMP, including construction monitoring, fossil salvage laboratory preparation of salvaged specimens, curation of prepared specimens, and storage of curated specimens. | Section 3.12.4 | Paleontologist | Post-construction | | | | | | |
| Although all fossils collected remain the property of the State, the collection must be properly curated at an approved facility (preferably local to the project location) and preserved for future researchers. A complete set of field notes, geologic maps, stratigraphic sections, and a copy of the final report should be curated with the fossils. | Section 3.12.4 | Paleontologist | Post-construction | | | | | | |

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| **Hazardous Waste/Materials** | | | | | | | | | |
| Wherever possible, the project alternatives follow the existing I-5 alignment to avoid and/or minimize impacts from hazards and hazardous materials. In particular, avoidance of the gasoline stations and soil excavation at Manchester Avenue, Birmingham Drive, Palomar Airport Road, Tamarack Avenue, and Carlsbad Village Drive would be considered. | Section 3.13.4 | Design Engineer | Design | | | | | | |
| Soil excavated from agricultural land and nurseries may require reuse or proper off-site disposal, with further testing necessary at Manchester Avenue, between Birmingham Drive and Palomar Airport Road, and at Cannon Road. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Soils from landfills near Piraeus Street may be reused or disposed as non-hazardous material at the appropriate landfill location; however, the Maxson Street site would be avoided. Further hazardous waste investigation may be necessary on individual parcels to be acquired. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Environmental Engineering staff shall be kept informed of parcel takes and changes in scope or design since further hazardous waste investigation may be necessary on individual parcels to be acquired. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Since there are chemical constituents present in soil and groundwater within the I-5 corridor, soil excavation activities shall be performed under the guidelines of a site-specific Soil Management Plan and Health and Safety Plan. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| The Department of Toxic Substances Control (DTSC) lead variance would be followed for ADL soil excavated in the median. Soil in the median along I-5 to a depth of two ft is hazardous with regard to soluble ADL concentrations. This soil may be reused on site in accordance with a DTSC lead variance issued to Caltrans. If this criterion cannot be met, then disposal of ADL soil would be a necessary at a Class I landfill. Soil excavated as a whole along the shoulders may be reused as clean material with regard to ADL, unless soil adjacent to the shoulder is segregated from the whole. The DTSC lead variance will apply for segregated soil from the shoulder. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| A NPDES permit shall be obtained, which would include measures for impacts to service stations. If soil from abutment excavations at Via de la Valle, Birmingham Drive, Brooks Street, Palomar Airport Road, Carlsbad Village Drive, or Mission Avenue would be exported, however, the soil may require further characterization for petroleum hydrocarbons, volatile organic compounds, or semi-volatile organic compounds to evaluate the proper disposal method. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| Although investigation near the Olympus and Maxson Street landfills did not encounter wastes associated with the landfills, it is recommended that widening activities in the vicinity of these landfills be moved to the west to avoid the landfill sites. If parcels were acquired at these landfill locations, excavated soil would require further characterization to evaluate the proper disposal method. | Section 3.13.4 | Design Engineer | Design / ROW Acquisition | | | | | | |
| If soil from locations containing farmland or nurseries is exported, further characterization for pesticide/herbicides would be warranted to evaluate the proper disposal method. | Section 3.13.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |

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| Because historical chemical spill locations along I-5 are unknown, a contingency should be written into the construction contract to address this potential hazardous waste issue. | Section 3.13.4 | Design Engineer | Design | | | | | | |
| Asbestos and lead paint may be in structures demolished during construction and must be handled and disposed of properly. | Section 3.13.4 | Resident Engineer | Construction | | | | | | |
| Treated wood waste in sight and guardrail posts must be handled and disposed of properly. | Section 3.13.4 | Resident Engineer | Construction | | | | | | |
| **Air Quality** | | | | | | | | | |
| Air Quality measures to minimize construction-related emissions include: | Section 3.14.4 | Resident Engineer | Construction | | | | | | |
| · The construction contractor shall comply with Caltrans' Standard Specifications in Section 14(2010). | | | | | | | | | |
| · 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. | | | | | | | | | |
| · Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in CA Code of Regulations Title 17, Section 93114. | | | | | | | | | |
| · Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads. | | | | | | | | | |
| Construction-related impacts from fugitive dust, $PM_{10}$, and $PM_{2.5}$ would be minimized by the following strategies: | Section 3.14.4 | Resident Engineer | Construction | | | | | | |
| · Section 14-9.02 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18. | | | | | | | | | |
| · Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a "no visible dust" criterion either at the point of emission or at the right-of-way line, depending on local regulations. | | | | | | | | | |
| · Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas. | | | | | | | | | |
| · Wash off trucks as they leave the right-of-way as necessary to control fugitive dust emissions. | | | | | | | | | |
| · Develop a dust control plan documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities. | | | | | | | | | |
| · Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic. | | | | | | | | | |
| · Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to minimize emission of dust (particulate matter) during transportation. | | | | | | | | | |
| · Promptly and regularly remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter. | | | | | | | | | |

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| · Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emission issues, and may need to use controls such as dampened straw. | | | | | | | | | |
| To minimize exposure to diesel particulate emissions, the following measures would be implemented: | Section 3.14.4 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| · Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly. | | | | | | | | | |
| · Near sensitive air receptors, establish Environmentally Sensitive Areas or their equivalent within which construction activities involving the extended idling of diesel equipment would be prohibited, to the extent feasible. | | | | | | | | | |
| **San Dieguito Riverpark** | | | | | | | | | |
| In the San Dieguito Lagoon, Caltrans will attempt to salvage two trail bridges that cross drainage channels identified to be demolished, and return the salvage to the JPA [Joint Powers Authority] for re-use. | Correspondece Jan 2014 | Project Management / Resident Engineer | Design / Construciton | | | | | | |
| Caltrans to continue researching surface material to reduce tire noise and use surface material that reduces tire noise near the San Dieguito Lagoon. | Correspondece Jan 2014 | Design Engineer | Design | | | | | | |
| Caltrans will work with the JPA to determine if lagoon or water-themed art and other educational amenities may be incorporated into the freeway trail undercrossing at the San Dieguito Lagoon. | Appendix A | Design Engineer / Landscape Architech | Design | | | | | | |
| Caltrans will work with the JPA to provide beautification on the concrete facing adjacent to the trail under I-5 and will review the original design to determine what elements can be incorporated into the proposed bridge at the San Dieguito Lagoon. | Appendix A | Design Engineer / Landscape Architech | Design | | | | | | |
| Caltrans will appoint the Project Manager of the *I-5 NCC Project* to work as a liaison with JPA staff on design details during the engineering design of the *I-5 NCC Project* for the San Dieguito Lagoon, particularly where the freeway interfaces with the trail and park | Appendix A | Design Engineer / Landscape Architech | Design | | | | | | |
| Caltrans will appoint the Project Manager for the *I-5 NCC Project* to work as a liaison with JPA staff during construction in order to establish procedures to address construction notifications, potential trail closures, and other construction-period issues for the San Dieguito Lagoon. | Appendix A | Project Management / Design Engineer | Design | | | | | | |

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| Caltrans JPA liaison will inform JPA staff of permanent storm water BMPs to be included in the design of the *I-5 NCC Project* to show that storm water will be treated to the Maximum Extent Practicable in accordance with *Order No. 2012-0011–DWQ, NPDES No. CAS000003 National Pollutant Discharge Elimination System (NPDES) Statewide Storm Water Permit Waste Discharge Requirements (WDRS) for the State of California Department of Transportation (Caltrans).* | Correspondece Jan 2014 | Project Management / Design Engineer | Design | | | | | | |
| **Noise** | | | | | | | | | |
| The following control measures would be implemented in order to minimize noise disturbances at sensitive receptors during periods of construction: | Section 3.15.14 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| · All equipment items would have manufacturers' recommended noise abatement measures, such as mufflers, engine enclosures, and engine vibration isolators intact and operational | | | | | | | | | |
| · All construction equipment would be inspected at periodic intervals to ensure proper maintenance and presence of noise control devices | | | | | | | | | |
| · Idling equipment would not be allowed | | | | | | | | | |
| · A construction noise-monitoring program would be implemented to limit impacts | | | | | | | | | |
| · Noisier operations would be planned during times least sensitive to receptors | | | | | | | | | |
| · Noise levels would be kept relatively uniform and; impulsive noises avoided | | | | | | | | | |
| · Good public relations would be maintained with the community to minimize objections to the unavoidable construction impacts. Frequent activity updates of all construction activities would be provided. | | | | | | | | | |
| · Ongoing communication would occur between the Caltrans Resident Engineer, the Oceanside Unified School District, and Oceanside High School. | | | | | | | | | |
| Design and install noise abatement at the locations recommended in the Final NADR. | Section 3.15.14 | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| **Energy** | | | | | | | | | |
| Efforts to minimize energy consumption during construction include: | Section 3.16.14 | Design Engineer / Public Information Officer / Resident Engineer | Design / Construction | | | | | | |
| · Public awareness campaigns to encourage carpooling and commuting during non-peak traffic hours | | | | | | | | | |
| · The recycling of materials, such as, damaged metal beam/guardrail, light standards, pipes, bridge materials, and /or used rebar salvaged as metal scrap | | | | | | | | | |
| · The use of recycled materials, such as, asphalt and concrete roadway materials through creation of road-base materials after crushing and grinding | | | | | | | | | |
| · Reuse of soil and vegetation where practicable | | | | | | | | | |
| · The salvage of material such as roadside sign posts, and sign structures, chain link fence fabric, lighting standards, and/or traffic signal standards and appurtenances | | | | | | | | | |
| · The use of energy-efficient construction vehicles | | | | | | | | | |

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| The following measures relevant to energy use during operations are consistent with other discussions in this Final EIR/EIS: | Section 3.16.14 | Design Engineer / Landscape Architect / Traffic Engineer / Resident Engineer | Design / Construction | | | | | | |
| · Incorporate bicycle-friendly intersections at interchange ramps, in coordination with the responsible local jurisdictions | | | | | | | | | |
| · Incorporate low water use landscaping | | | | | | | | | |
| · Develop and implement a comprehensive TMP to increase driver awareness, ease congestion, and minimize delay during construction (see Traffic measures.) | | | | | | | | | |
| **Natural Communities** | | | | | | | | | |
| BO1. To minimize impacts to all habitats, 2:1 slopes will be used along the freeway and retaining walls will be used on cut slopes. | Section 3.17.3 and Appendix O | Design Engineer | Design | | | | | | |
| BO2. No riprap will be used in channel bottoms for bridge construction to minimize impacts to aquatic habitats. | Section 3.17.3 and Appendix O | Design Engineer | Design | | | | | | |
| BO3. Retaining walls 6 feet or lower in height will be used as feasible on fill slopes within lagoons to minimize impacts to aquatic habitats from the bike/pedestrian path. Retaining walls will also be used as feasible on cut slopes through coastal mesas to minimize project impacts to sensitive upland habitats. | Section 3.17.3 and Appendix O | Design Engineer | Design | | | | | | |
| BO4. The I-5 lagoon bridges will be lengthened to accommodate a channel bottom width of at least 261, 134, and 105 feet at San Elijo, Batiquitos, and Buena Vista Lagoons, respectively, consistent with the recommendations in the lagoon bridge optimization studies (Moffatt & Nichol 2012a and b, Everest International Consultants, Inc. 2012). | Appendix O | Design Engineer | Design | | | | | | |
| BO5. Project work within open water habitat in the San Luis Rey River in occupied goby critical habitat will be minimized to approximately 500 square feet of permanent impacts from bridge pilings, 0.3 acre of bridge shading, and 0.2 acre of temporary impacts. Cofferdams at bridge footings will be used such that project construction will not require diversion or relocation of the active channel. The project will not conduct actions that will result in the breach of seasonal San Luis Rey River estuary berms. Construction berms will not be used within the San Luis Rey River and all lagoons to minimize impacts on the active channel and avoid sedimentation impacts. | Section 3.17.3 and Appendix O | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| BO6. Project landscaping will follow the provisions set forth in Executive Order 13112, which mandates preventing the introduction of and controlling the spread of invasive plant species on highway Right-of-ways. No invasive species listed in the National Invasive Species Management Plan, the State of California Noxious Weed List, or the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory list will be included in the landscaping plans for the proposed project. Landscaping will not use plants that require intensive irrigation, fertilizers, or pesticides adjacent to preserve areas, and water runoff from landscaped areas will be directed away from adjacent native habitats and contained and/or treated within the development footprint. | Section 3.22.4 and Appendix O | Design Engineer / Landscape Architect / Biologist | Design | | | | | | |

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| BO7. Permanent project lighting will be of the lowest illumination necessary for safety and will be directed toward the roadway, Park and Ride's, and other project facilities, and away from sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats. Lighting adjacent to lagoons will be fitted with bird control spikes to ensure that raptors will not be able to use lighting as a perch to prey on listed bird species. With the exception of pathway lighting for the North Coast Bikeway, there will be no night lighting of trails within lagoons, wildlife corridors, and sensitive habitat areas. Pathway lighting for the North Coast Bikeway will be of the lowest illumination necessary for safety and will be designed to avoid light spill into adjacent sensitive habitats and wildlife movement areas. Caltrans will coordinate with the CFWO regarding the design of pathway lighting for the North Coast Bikeway to ensure that the lighting will not negatively affect wildlife movement in the project area. Caltrans will review the permanent lighting plans and then submit them to the CFWO for review and approval. | Section 3.17.3 and Appendix O | Design Engineer / Biologist | Design | | | | | | |
| BO8. All pedestrian trails and bike paths will be fenced in a manner that will encourage users to remain on the trails and paths. In areas where wildlife movement is expected, such as along river and lagoon bridge benches, fencing will be designed in a manner that will encourage users to remain on the trails and paths but which will not preclude wildlife from moving through habitat areas and accessing pedestrian benches during flood events (e.g., [three rail] spilt rail fencing). Signage will be posted and maintained at conspicuous locations to inform users about adjacent sensitive habitats and species as well as access restrictions. Plans for fencing and signage for each phase of project construction will be submitted to the CFWO for approval at least 5 days prior to initiating project impacts in each phase. Fencing and signage will be installed prior to completion of each phase of project construction. | Section 3.17.3 and Appendix O | Design Engineer / Biologist | Design | | | | | | |
| BO9. The following wildlife connectivity features will be constructed to ensure that ecosystem functions are maintained for the benefit of listed species: | | | | | | | | | |
| a. At Carmel Creek, a 10-foot-wide bench will be constructed at the south bridge abutment, and the existing 8-foot-wide bench at the north bridge abutment will be maintained. The south bench will be modified to allow for usage by pedestrians and bikes and is expected to provide for wildlife usage at night and during flood events. The project will elevate the Sorrento Valley Road Bike Path Connector to the west of the bridge and remove sediment under and southwest of the bike path to remove an existing constraint to flood flows and to improve wildlife connectivity from east to west. | | | | | | | | | |
| b. At the proposed bridge over Los Penasquitos and Soledad Creeks, the existing bridge provides for a substantial dry movement area with a 2:1 slope to the north, which will be maintained. A new 16-foot-wide bench may be added at the south bridge abutment for both pedestrians and wildlife depending upon clearance. | | | | | | | | | |

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| c. At San Dieguito Lagoon, the existing bridge provides for a substantial dry movement area to the south, and an existing 12-foot-wide pedestrian pathway will be maintained to the north that is expected to provide for wildlife movement at night and during flood events. Existing pier walls constrain visibility and openness under the bridge. If possible, Caltrans will cut openings in existing and proposed pier walls to improve visibility and openness. The south bank of the channel will not be armored. | Section 3.17.3 and Appendix O | Design Engineer / Biologist / Biological Monitor | Design / Construction / Post-construction | | | | | | |
| d. At San Elijo Lagoon, a 12-foot-wide wildlife bench will be constructed to the south, and existing pedestrian pathways to the north and south will be maintained and are expected to provide for wildlife movement at night and during flood events. | | | | | | | | | |
| e. At Batiquitos Lagoon, a16-foot-wide wildlife bench will be constructed on the south bridge abutment and a 16-foot wide pedestrian path will be maintained on the north bridge abutment that is expected to provide for wildlife movement at night and during flood events. | | | | | | | | | |
| f. At Agua Hedionda Lagoon, 16-foot-wide benches for pedestrian and wildlife use will be constructed at both the north and south bridge abutments. | | | | | | | | | |
| g. At Buena Vista Lagoon, 16-foot-wide benches for wildlife movement will be constructed at both the north and south bridge abutments. | | | | | | | | | |
| h. At the San Luis Rey River, a pedestrian trail will be constructed mid-slope on the north bridge abutment that is expected to provide for wildlife movement at night and during flood events. | | | | | | | | | |
| i. Bridges where wildlife movement is expected will use columns rather than pier walls to improve visibility and openness and encourage usage by wildlife, including Carmel Creek, Los Peñasquitos and Soledad Creeks, and all lagoons (with the exception of San Dieguito Lagoon and the San Luis Rey River where pier walls may be required for stability). | | | | | | | | | |
| j. To the maximum extent feasible, rock slope protection will be avoided at wildlife benches. If rock slope protection is required, modifications (e.g., small pebble, dirt, soil covered rip rap, or grouted movement pathways) will be made such that animals of all sizes can use the wildlife benches. | | | | | | | | | |
| k. Monitoring will be conducted on the effectiveness of the wildlife connectivity features such that the effectiveness of wildlife connectivity features can be improved and to inform decision-making for future projects. This monitoring will include research on the degree to which various undercrossings are used by target species. Remote cameras will be used to document use of wildlife undercrossings. Monitoring will be conducted over a minimum of 5 years following construction of each wildlife connectivity feature to allow wildlife to become accustomed to the wildlife connectivity features. Annual monitoring reports, including photographs, modifications made to wildlife connectivity features to improve their functionality, and recommendations, will be provided to the CFWO each year for the duration of the 5-year monitoring period following each phase of project construction. | | | | | | | | | |

**Environmental Generalist: Shay Lynn M. Harrison**
**Phone: (619) 688-0190**

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| l. Wildlife benches will be maintained in perpetuity to ensure that wildlife connectivity in the project area is not lost over time. The wildlife connectivity plan will include a detailed explanation of how wildlife benches will be maintained and how the maintenance will be funded. | | | | | | | | | |
| BO10. Caltrans will submit final project design plans to the CFWO for review and approval, based on the draft plans dated August 22, 2012, with the following revisions: 1) measures, such as the use of fabric weed barriers and mulch, will be incorporated into the design plans to limit the establishment and spread of invasive species along the oleander median; 2) gateway undercrossings and overcrossings adjacent to lagoons will not include decorative night lighting or vertical features that may be used as a perch by raptors to prey upon listed species; 3) the design and elevation of suspended pedestrian bridges will not impede access by maintenance dredges at lagoons; 4) invasive species will be removed from planting palettes; 5) plans will clearly show that areas of temporary impact to native habitats will be replanted with native species; and 6) plans will specify that the height of vegetation planted near coastal lagoons will be limited (e.g., coastal sage and chaparral species up to approximately 8 feet in height) to prevent perching and predation by raptors on listed species. | Section 3.17.3, Section 3.22.4 and Appendix O | Design Engineer / Landscape Architect / Biologist | Design | | | | | | |
| BO11. Because the project is expected to start in 2014 and be phased over approximately 21 years, Caltrans will conduct updated surveys for the gnatcatcher, rail, and manzanita within 1 year prior to the commencement of vegetation clearing and construction activities for each project phase to ensure that survey information remains up to date. FHWA and Caltrans acknowledge that Section 7 consultation will be reinitiated if survey results indicate that additional impacts to these species may occur beyond those addressed in this biological opinion. | Section 3.21.4 and Appendix O | Biologist | Design / Pre-construction | | | | | | |
| BO12. *Caulerpa taxifolia* surveys will be completed before and after construction at each of the lagoons to ensure there is no infestation within project limits. If *Caulerpa taxifolia* is found, measures will be implemented to eradicate it from the area. | Section 3.22.4 and Appendix O | Biologist | Pre-construction / Post-construction | | | | | | |
| BO13. Prior to construction equipment entering open water habitat in the San Luis Rey River, all gobies within the project impact footprint will be captured and relocated to a proximal and safe location, and gobies will be excluded from re-entering the project impact footprint. Caltrans will submit a goby capture, relocation and exclusion plan to the CFWO for review and approval. The plan will include relocation of native species and removal of non-native species captured with gobies during the relocation effort. Capture methods will follow commonly accepted techniques for fish capture such as seining. The plan will be prepared and implementation will be overseen by a CFWO-approved biologist knowledgeable of goby biology and ecology. | Section 3.21.4 and Appendix O | Biologist | Pre-construction / Construction | | | | | | |

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| BO14. Prior to construction in areas with manzanita, all manzanita in the project impact footprint (including the approximately 6 individuals currently known and any other individuals found in updated surveys) will be salvaged and translocated to the Dean property, which is near the currently known salvage locations. Caltrans will submit a manzanita translocation plan to the CFWO for review and approval. The plan will be prepared and implementation will be overseen by a CFWO-approved biologist knowledgeable of manzanita biology and ecology and translocating sensitive plant species. There has been limited success with translocation of this species; therefore, seed will be collected prior to impacts and used to propagate additional plants at a facility that has experience working with manzanita and specializes in the propagation of native plants. The manzanita plants grown from seed will also be planted at the Dean property. A field review will be conducted with the CFWO to review and approve the locations where the manzanita plants will be planted on the Dean property. The translocated manzanita population will be monitored for a minimum of 5 years to document success or failure of the | Section 3.21.4 and Appendix O | Biologist | Pre-construction / Construction / Post-construction | | | | | | |
| BO15. The clearing and grubbing of native wetland and riparian habitats will occur between September 16 and March 14 and the clearing and grubbing of native upland habitats for the project will occur between September 1 and February 14, to avoid the rail and gnatcatcher breeding seasons, respectively [or sooner than September 16 or September 1, if a biologist knowledgeable of gnatcatcher and rail biology and ecology approved by the CFWO demonstrates to the satisfaction of the CFWO that all rail or gnatcatcher nesting is complete]. Caltrans will submit the biologist's name, address, telephone number, and work schedule on the project to the CFWO at least 5 working days prior to initiating project impacts. | Section 3.21.4 and Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| BO16. Pile driving for bridge construction near the lagoons and San Luis Rey River will be completed between September 16 and February 14 to minimize construction noise impacts to rail and gnatcatcher breeding. Pile driving may commence earlier in the fall if a biologist knowledgeable of gnatcatcher and rail biology and ecology approved by the CFWO demonstrates to the satisfaction of the CFWO that all rail and gnatcatcher breeding is complete within the area where construction noise will exceed ambient levels as a result of pile driving. Caltrans will submit the biologist's name, address, telephone number, and work schedule on the project to the CFWO at least 5 working days prior to initiating project impacts. | Section 3.21.4 and Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| BO17. Noise barriers will be installed at the edge of temporary impact areas near sensitive resources where feasible depending on inundation and effective heights required for walls. Noise walls would not be effective where fill slopes are significantly higher than impact areas. | Section 3.21.4 and Appendix O | Design Engineer / Biologist / Resident Engineer | Design / Construction | | | | | | |
| BO18. All construction equipment used for the project will be equipped with properly operating and maintained mufflers. | Section 3.21.4 and Appendix O | Resident Engineer | Construction | | | | | | |
| BO19. During in-water bridge construction activities at all lagoons and the San Luis Rey River, bubble curtains or other methods to minimize acoustical impacts to aquatic species will be implemented. These measures will be developed in coordination with the CFWO when project design and construction methodology is further developed. | Section 3.21.4 and Appendix O | Design Engineer / Biologist / Resident Engineer | Design / Construction | | | | | | |

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| BO20. If nighttime construction is necessary, all lighting used at night for project construction (e.g., staging areas, equipment storage sites, roadway) will be selectively placed and directed onto the roadway or construction site and away from sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats. | Section 3.21.4 and Appendix O | Biologist / Resident Engineer/ Biological Monitor | Design / Construction | | | | | | |
| BO21. Appropriate best management practices (BMPs) will be used to control erosion and sedimentation and to capture debris and contaminants from bridge demolition and construction to prevent their deposition in coastal lagoons and waterways. No sediment or debris will be allowed to enter lagoons, creeks, rivers, or other drainages. All debris from the demolition and construction of bridges will be contained so that it does not fall into channels. Appropriate BMPs will be used during construction to limit the spread of resuspended sediment and contain debris. These may include cofferdams, blasting mats, silt curtains, turbidity curtains and/or other barriers. Water within cofferdams will not be returned to the San Luis Rey River or lagoons until it is clear and clean. This may be accomplished through the use of desiltation tanks or other appropriate measures. Collected sediments will be removed from the site and disposed of properly. BMPs (e.g., gravel bags) will be used at the discharge point to avoid erosion. | Section 3.17.3 and Appendix O | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| BO22. Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard. | Section 3.20.4 and Appendix O | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| BO23. All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas that are a minimum of 100 feet from drainages/lagoons and associated plant communities, to preclude adverse water quality impacts. Fuel cans and fueling of tools will not be allowed inside the drainages. | Section 3.17.3 and Appendix O | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| BO24. Impacts from fugitive dust will be avoided and minimized through watering and other appropriate BMPs | Section 3.17.3 and Appendix O | Resident Engineer | Construction | | | | | | |
| BO25. Cationic polymers are attracted to the hemoglobin in fish gills and can cause suffocation at relatively low concentrations. Cationic polymers will not be used for dust control. | Section 3.20.4 and Appendix O | Design Engineer / Resident Engineer | Design / Construction | | | | | | |
| BO26. Bioswales and detention basins will be placed to avoid impacts to wetlands (e.g., these features will not be located at the base of slope within lagoons). | Section 3.17.3 and Appendix O | Design Engineer / Biologist | Design | | | | | | |
| BO27. The project site will be kept as clear of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site. All spoils and material disposal will be disposed of properly. | Section 3.17.3 and Appendix O | Resident Engineer | Construction | | | | | | |
| BO28. If fill must be borrowed from or disposed of offsite, the construction contractor will identify any necessary borrow and disposal sites and provide this information to Caltrans for review. Caltrans will review borrow and disposal site information and submit the information to the CFWO. If borrow or disposal activities may affect a listed species or critical habitat, FHWA/Caltrans will reinitiate Section 7 consultation.[5] | Section 3.17.3 and Appendix O | Design Engineer / Biologist / Project Management / Resident Engineer | Construction | | | | | | |

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| [5] Under the current process, FHWA would reinitiate formal consultation and Caltrans (acting for FHWA) would reinitiate informal consultation. | | | | | | | | | |
| BO29. Contractors and construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint. | Section 3.17.3 and Appendix O | Resident Engineer | Construction | | | | | | |
| BO30. Project personnel will be prohibited from bringing domestic pets to construction sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent habitats. | Section 3.20.4 and Appendix O | Resident Engineer | Construction | | | | | | |
| BO31. A CFWO-approved biologist (Biological Monitor[6]) will be on site during: a) initial clearing and grubbing; and b) weekly during project construction within 500 feet of offsite gnatcatcher, rail, goby, and manzanita habitat to ensure compliance with all conservation measures. Caltrans will submit the biologist's name, address, telephone number, and work schedule on the project to the CFWO at least 5 working days prior to initiating project impacts. The contract of the Biological Monitor will allow direct communication with the CFWO at any time regarding the proposed project. The Biological Monitor will be provided with a copy of this consultation. The Biological Monitor and a Caltrans Project Biologist[7] will be available during pre-construction and construction phases to review grading plans, address protection of sensitive biological resources, monitor ongoing work, and maintain communications with the Resident Engineer to ensure that issues relating to biological resources are appropriately and lawfully managed. The Biological Monitor will perform the following duties: | | | | | | | | | |
| a. Perform a minimum of three focused preconstruction surveys, on separate days, to determine the presence of gnatcatchers or rails in the project impact footprint. Surveys will begin a maximum of 30 days prior to performing vegetation clearing/grubbing, and one survey will be conducted the day immediately prior to the initiation of vegetation clearing. If any gnatcatchers or rails are found in the project impact footprint, the Biological Monitor will direct construction personnel to begin vegetation clearing/grubbing in an area away from the gnatcatchers and/or rails. It will be the responsibility of the Biological Monitor to ensure that gnatcatchers and rails will not be injured or killed by vegetation clearing/grubbing. The Biological Monitor will also record the number and location of gnatcatchers and rails disturbed by vegetation clearing/grubbing. Caltrans will notify the CFWO at least 7 days prior to vegetation clearing/grubbing to allow the CFWO to coordinate with the Caltrans Project Biologist on potential bird flushing activities; | | | | | | | | | |
| b. Oversee installation of and inspect the construction fencing and erosion control measures a minimum of once per week to ensure that any breaks in the fencing or erosion control measures are repaired immediately and that rails have not entered the project impact footprint; | | | | | | | | | |
| c. Implement the goby capture, relocation and exclusion plan; and manzanita translocation plan; | | | | | | | | | |
| d. Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust; | | | | | | | | | |

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| e. Train all contractors and construction personnel on the biological resources associated with the project and ensure that training is implemented by construction personnel. At a minimum, training will include: 1) the purpose for resource protection; 2) a description of the gnatcatcher, rail, goby, and manzanita and their habitats; 3) the conservation measures that should be implemented during project construction to conserve the gnatcatcher, rail, goby, and manzanita, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); 4) environmentally responsible construction practices; 5) the protocol to resolve conflicts that may arise at any time during the construction process; and 6) the general provisions of the Act, the need to adhere to the provisions of the Act, and the penalties associated with violating the Act; | Section 3.21.4 and Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| f. Request that the Resident Engineer halt work, if necessary, and confer with the Caltrans Project Biologist and the CFWO to ensure the proper implementation of species and habitat protection measures. The Caltrans Project Biologist will report any noncompliance issue to the CFWO within 24 hours of its occurrence; | | | | | | | | | |
| g. Monitor the project site immediately prior to and during construction to identify the presence of invasive weeds and recommend measures to avoid their inadvertent spread in association with the project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies. All heavy equipment will be washed and cleaned of debris prior to entering a lagoon area to minimize the spread of invasive weeds; | | | | | | | | | |
| h. Submit monthly email reports (including photographs of impact areas) to the Caltrans Project Biologist during clearing of, and construction within, 500 feet of gnatcatcher, rail, goby, and manzanita habitats. The monthly reports will document that authorized impacts were not exceeded and general compliance with all conditions. The reports will also outline the location of construction activities, the type of construction that occurred, and equipment used. These reports will specify numbers, locations, and sex of gnatcatchers, rails, and gobies (if observed), their observed behavior (especially in relation to construction activities), and remedial measures employed to avoid and minimize impacts to these species. The Caltrans Project Biologist will review reports and forward them to the CFWO. Raw field notes should be available upon request by the CFWO; and | | | | | | | | | |

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| i. Submit a final report to Caltrans Project Biologist within 120 days of the completion of construction for each project phase that includes: photographs of habitat areas that were to be avoided and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conservation measures was achieved. As-built construction drawings with an overlay of habitat that was impacted and avoided will be provided as well once they have been completed. The Caltrans Project Biologist will review the report and forward it to the CFWO. | | | | | | | | | |
| [6] The Biological Monitor will be familiar with the federally listed species potentially affected by the project (i.e., gnatcatcher, rail, goby and manzanita) and with the habitats that support these species. | | | | | | | | | |
| [7] The Caltrans Project Biologist will be a Caltrans biologist familiar with the federally listed species potentially affected by the project and with the habitats that support these species; he/she will be the primary contact for the CFWO during project implementation. | | | | | | | | | |
| BO32. All native or sensitive habitats outside and adjacent to the permanent and temporary construction limits will be designated as Environmentally Sensitive Areas (ESAs) on project maps. ESAs will be temporarily fenced during construction with orange plastic snow fence, orange silt fencing, or in areas of flowing water, with stakes and flagging. No personnel, equipment or debris will be allowed within the ESAs. Fencing and flagging will be installed in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. At the bridge construction areas where there is the potential for rail movement under the bridges, fencing will be installed in a manner that will direct rails to the open channel under bridges to the extent feasible. Caltrans will submit to the CFWO for approval, at least 5 days prior to initiating project impacts (except for impacts resulting from clearing to install temporary fencing), the final plans for initial clearing and grubbing of habitat and project construction. These final plans will include photographs that show the fenced and flagged limits of impact and all areas to be impacted or avoided. If work | Section 3.21.4, Section 3.17.3 and Appendix O | Design Engineer / Biologist / Resident Engineer / Biological Monitor | Design / Pre-construction / Construction | | | | | | |
| BO33. During project construction all invasive species included on National Invasive Species Management Plan, the State of California Noxious Weed List, and the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory list found growing within the project right-of-way will be removed. Weed removal will be conducted within the project right-of-way at least once per year during the construction period. Special care will be taken during transport, use, and disposal of soils containing invasive weed seeds and all weedy vegetation removed during construction will be properly disposed of to prevent spread into areas outside of the construction area. | Section 3.22.4, Section 3.17.3 and Appendix O | Resident Engineer / Biological Monitor | Construction | | | | | | |
| BO34. A channel large enough for fish and rail movement will be kept open throughout project construction in the San Luis Rey River and each of the lagoons. Prior to initiation of construction in the San Luis Rey River and each of the lagoons, Caltrans will submit a plan to the CFWO for maintaining a channel for fish and/or rail movement in the San Luis Rey River and each of the lagoons. | Section 3.21.4 and Appendix O | Biologist / Resident Engineer | Pre-construction / Construction | | | | | | |

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| BO35. Permanent and temporary impacts to gnatcatchers, rails, gobies, manzanita, and critical habitat for the gnatcatcher and goby (as summarized in Tables 3 and 4 of the BO [Appendix O]) resulting from the I-5 North Coast Corridor Project will be offset through habitat creation restoration, and preservation/enhancement as shown in Table 5 and Figures 22-31 of the BO (Appendix O). Implementation of these conservation measures is phased ahead of project impacts. In addition, large-scale lagoon restoration and lagoon management endowments shown in Table 5 of the BO (Appendix O) will be implemented to provide additional conservation to offset impacts from the I-5 North Coast Corridor Project, Los Angeles to San Diego Rail Corridor, and I-5 / State Route-78 Interchange Project (with project elements as listed in the REP). | Section 3.21.4 and Appendix O | Biologist / Project Manager | Design | | | | | | |
| BO36. Caltrans will submit draft San Dieguito Lagoon W19, Hallmark, Dean, San Elijo Uplands, Deer Canyon, Laser, and La Costa wetland and upland creation / restoration / enhancement plans to the CFWO for review and approval prior to initiating project impacts. Caltrans will provide the final plans to the CFWO. The final plans will include the following information and conditions: | | | | | | | | | |
| a. All final specifications and topographic-based grading, planting and irrigation plans (0.5-foot contours and typical cross-sections for wetlands and 10-foot contours for uplands) for the creation/restoration/enhancement sites. All wetland mitigation areas will be graded to the same elevation as adjacent existing Corps jurisdictional wetlands areas, and/or to within 1-foot of the groundwater table, and will be left in a rough grade state with micro topographic relief (including channels for wetlands) that mimics natural topography. All upland habitat creation/restoration/enhancement sites will be prepared for planting by decompacting the top soil in a way that mimics natural upland habitat top soil to the maximum extent practicable while maintaining slope stability. Topsoil and plant materials salvaged from the impacted areas (including live herbaceous, shrub and tree species) will be transplanted to, and/or used as a seed/cutting source for, the creation and enhancement areas to the maximum extent practicable. Planting and irrigation will not be installed until the CFWO has approved of the site grading. All plantings will be installed in a way | | | | | | | | | |
| b. Planting palettes (plant species, size and number/acre) and seed mix (plant species and pounds/acre). The multitude of plant palettes proposed in the draft plans will include native species specifically associated with the habitat type(s). Unless otherwise approved by the CFWO, only locally native species (no cultivars) obtained within San Diego County available from as close to the project area as possible will be used. The source and proof of local nativeness of all plant material and seed will be provided. | | | | | | | | | |
| c. Container plant survival will be 80 percent of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all dead plants will be replaced unless their function has been replaced by natural recruitment. | | | | | | | | | |

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| d. A final implementation schedule that indicates when all native habitat impacts, as well as native habitat creation / restoration / enhancement grading, planting and irrigation will begin and end. Necessary site preparation and planting will be completed during the concurrent or next planting season (i.e., late fall to early spring) after receiving the CFWO's approval of grading. | Section 3.17.3 and Appendix O | Biologist | Design / Construction / Post-construction | | | | | | |
| e. Five years of success criteria for creation / restoration / enhancement areas including: separate percent cover criteria for herbaceous understory, shrub midstory, and tree overstory, and a total percent absolute cover for all three layers at the end of 5 years for wetlands, and a total percent absolute cover for uplands; evidence of natural recruitment of multiple species for all habitat types; 0 percent coverage will be maintained for Cal-IPC's "Invasive Plant Inventory" species, and no more than 10 percent coverage for other exotic/weed species. | | | | | | | | | |
| f. A minimum 5 years of maintenance and monitoring of creation / restoration / enhancement areas, unless success criteria are met earlier and all artificial water supplies have been off for at least 2 years. | | | | | | | | | |
| g. A qualitative and quantitative vegetation monitoring plan with a map of proposed sampling locations. Photo points will be used for qualitative monitoring and stratified random sampling will be used for all quantitative monitoring. | | | | | | | | | |
| h. Contingency measures in the event of creation/restoration/enhancement failure. | | | | | | | | | |
| i. Annual mitigation maintenance and monitoring reports will be submitted to the CFWO no later than December 1 of each year. | | | | | | | | | |
| j. If maintenance of a wetland creation / restoration / enhancement area potentially occupied by rails is necessary between March 15 and September 15, a biologist with knowledge of rail biology and ecology and approved by the CFWO will survey for rails within the creation / restoration / enhancement area, access paths to it, and other areas susceptible to disturbances by creation / restoration / enhancement site maintenance. Surveys will consist of three visits separated by 2 weeks starting April 1 of each maintenance/monitoring year. Restoration work will be allowed to continue on the site during the survey period. However, if rails are found during any of the visits, the applicant will notify and coordinate with the CFWO to identify measures to avoid and/or minimize effects to the rail (e.g., nests and an appropriate buffer will be flagged by the biologist and avoided by the maintenance work). | | | | | | | | | |

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| k. If maintenance of a coastal sage scrub restoration / enhancement area is necessary between February 15 and August 31, a biologist with knowledge of the biology and ecology of gnatcatchers and approved by the CFWO will survey for gnatcatchers within the creation / restoration / enhancement area, access paths to it, and other areas susceptible to disturbances by site maintenance. Surveys will consist of three visits separated by 2 weeks starting March 1 of each maintenance/monitoring year. Work will be allowed to continue on the site during the survey period. However, if gnatcatchers are found during any of the visits, Caltrans will notify and coordinate with the CFWO to identify measures to avoid and/or minimize effects to the gnatcatcher (e.g., nests and an appropriate buffer will be flagged by the biologist and avoided by the maintenance work). | | | | | | | | | |
| BO37. Perpetual biological conservation easements or other conservation mechanisms acceptable to the CFWO will be recorded over the areas created, restored, and/or preserved / enhanced by the project at the San Dieguito Lagoon W19, Hallmark, Dean, San Elijo Uplands, Deer Canyon, Laser, and La Costa properties. The conservation mechanisms will specify that no easements or activities (e.g., fuel modification zones, public trails, drainage facilities, walls, maintenance access roads, utility easements) that will result in soil disturbance and/or native vegetation removal will be allowed within the biological conservation easement areas, with exceptions as documented in the Constraints sections of Mitigation Site Assessments for these properties and where the acreage of impacts is not included in the mitigation acreage totals in Table 5 of the BO (Appendix O). Draft Mitigation Site Assessments have been provided to the CFWO for our review and comment. A copy of final Mitigation Site Assessments will be provided to the CFWO that clearly document constraints and demonstrate compliance with the requirement that the acreage of impacts resulting from constraints is | Section 3.17.3 and Appendix O | Biologist / Project Management | Pre-construction / Post-construction | | | | | | |
| BO38. Caltrans will prepare and implement perpetual management, maintenance, and monitoring plans for the San Dieguito Lagoon W19, Hallmark, Dean, San Elijo Uplands, Deer Canyon, Laser, and La Costa properties. Caltrans will also establish non-wasting endowments for amounts approved by the CFWO based on Property Analysis Records (PAR) (Center for Natural Lands Management ©1998) or similar cost estimation methods, to secure the ongoing funding for the perpetual management, maintenance and monitoring of these properties. Caltrans will submit draft long-term management plans for the properties to the CFWO for review and approval. The long-term management plans will include, but not be limited to, the following: 1) the PAR or other cost estimation results for the non-wasting endowment; 2) proposed land manager's name, qualifications, business address, and contact information; 3) method of protecting the resources in perpetuity (e.g., conservation easement), monitoring schedule, measures to prevent human and exotic species encroachment, funding mechanism, and contingency measures should problems occur. Caltrans will submit the final long-term management plans to the CFWO. Caltrans anticipates that the | Section 3.17.3 and Appendix O | Biologist / Project Management | Pre-construction / Post-construction | | | | | | |

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| BO39. Caltrans will establish a non-wasting endowment for an amount approved by the CFWO, based on reliable and current estimates of maintenance costs, for long-term maintenance of Batiquitos and Los Peñasquitos Lagoons, including lagoon inlet maintenance and dredging. Caltrans will submit the estimates and information to demonstrate that the endowment will be non-wasting, and will adequately cover the costs of maintenance, to the CFWO for review and approval. Caltrans will make the endowment available for use within 1 year of establishment of the endowment, which will be established no later than December 1, 2015. Any delay in availability of funds will be reviewed and approved by the CFWO. | Section 3.17.3 and Appendix O | Project Management | Pre-construction / Post-construction | | | | | | |
| BO40. Caltrans will fund, in full, a large-scale salt water lagoon restoration at San Elijo Lagoon and/or Buena Vista Lagoon through the REP[8]. Caltrans will submit revised drafts of the REP to the CFWO for review and comment. Large-scale lagoon restoration funding will be used solely for salt water lagoon restoration, which will restore tidally-influenced habitats that are comparable with project impacts, for the benefit of listed species. Allocation of funding for large-scale salt water lagoon restoration will be determined, in coordination with the CFWO, prior to initiating project impacts. Caltrans will submit a copy of the final REP and funding proposal to the CFWO for review and approval. | Section 3.21.4 and Appendix O | Biologist / Project Management | Design / Pre-construction / Post-construction | | | | | | |
| [8] A separate section 7 consultation with the Federal lead agency for the restoration project will be required to address impacts to listed species resulting from large-scale lagoon restoration. | | | | | | | | | |
| BO41. Caltrans will establish non-wasting endowments for amounts approved by the CFWO, based on reliable and current estimates of maintenance costs, for long-term maintenance of the large-scale lagoon restoration at San Elijo Lagoon and/or Buena Vista Lagoon. Caltrans will submit the endowment estimates to the CFWO for review and approval. The endowments are anticipated to be established during the year in which the large-scale lagoon restoration work is completed and no later than December 1, 2019 unless a written extension is requested by Caltrans showing good faith efforts to establish the endowment and the extension request is granted by the CFWO. Funds will be available for use within one year of establishment of the endowments. | Section 3.17.3 and Appendix O | Biologist / Project Management | Construction / Post-construction | | | | | | |

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| BO42. All areas of temporary impact, as quantified in Table 2 of the BO (Appendix O), will be revegetated and restored with native species. These areas will be returned to original grade, as feasible. Prior to initiating project impacts, a restoration plan will be developed for the temporary impact areas. The plan will be submitted to the CFWO for review and approval. This plan will include a detailed description of restoration methods, slope stabilization, and erosion control, criteria for restoration to be considered successful, and monitoring protocol(s). Following the completion of construction activities within each area of impact, the restoration plan will be implemented for a minimum of 5 years, unless success criteria are met earlier and all artificial water has been off for at least 2 years. Temporary impact areas will be planted as soon as possible following re-grading after completion of construction to prevent encroachment by nonnative plants. | Section 3.17.3 and Appendix O | Design Engineer / Biologist / Landscape Architect / Resident Engineer / | Design / Construction / Post-construction | | | | | | |
| BO43. Cut and fill slopes adjacent to native habitats will be revegetated with native habitats with similar composition to those within the project study area as feasible, including over 86 acres of slopes near lagoons and other open space that will be revegetated with coastal sage scrub. Duff and rare plants from areas with coastal sage scrub, maritime succulent scrub, and maritime chaparral may be salvaged from the project impact footprint to the extent practicable to aid in revegetating slopes with native habitats (excluding areas with invasive nonnative species such as African veldt grass and onion weed). The revegetated areas will have temporary irrigation and will be planted with native container plants and seeds selected in coordination with the Caltrans Project Biologist. At least 3 years of plant establishment/maintenance on these slopes will be conducted to control nonnative plants. Bioswales and detention basins will be planted with appropriate species as determined in coordination with the Caltrans Project Biologist and storm water pollution prevention professional. These areas will be planted as soon as possible following completed construction to | Section 3.17.3 and Appendix O | Design Engineer / Biologist / Landscape Architect / Resident Engineer / Biological Monitor | Design / Construction / Post-construction | | | | | | |
| **REASONABLE AND PRUDENT MEASURES** | | | | | | | | | |
| Caltrans will implement significant conservation measures as part of the proposed action to minimize the incidental take of gnatcatchers, rails, and gobies. In addition to these conservation measures, the following reasonable and prudent measures are necessary to monitor and report the effects of the incidental take on gnatcatchers, rails, and gobies: | Appendix O | Biologist / Resident Engineer / Biological Monitor | Construction | | | | | | |
| 1. FHWA and/or Caltrans will monitor and report on compliance with the established take exemptions for gnatcatchers associated with the proposed action. | | | | | | | | | |
| 2. FHWA and/or Caltrans will monitor and report on compliance with the established take exemptions for rails associated with the proposed action. | | | | | | | | | |
| 3. FHWA and/or Caltrans will monitor and report on compliance with the established take exemptions for gobies associated with the proposed action. | | | | | | | | | |

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| | **Coastal California Gnatcatcher** | | | | | | | | | |
| BIO-2.1 | 1.1 Prior to initiating each phase of the proposed project, three preconstruction surveys will be conducted within all suitable gnatcatcher habitat within the footprint for that phase of the project, within 30 days prior to initiation of vegetation removal activities, to verify that no more than 6 gnatcatcher pairs in phase 1, 8 gnatcatcher pairs in phase 2, and 1 gnatcatcher pair in phase 3 (unless bridge construction is moved forward in project phasing to avoid impacts to coastal wetlands in which case take of 4 pairs of gnatcatchers would be advanced from phase 2 to phase 1), with 15 pairs in total, will be taken as a result of the project. Prior to initiating each phase of the project, FHWA and/or Caltrans will provide to the CFWO a map showing the distribution of gnatcatchers relative to the project footprint for that phase, an estimate of the number of gnatcatchers territories that will be impacted by the project in that phase, and the cumulative total of gnatcatcher territories impacted by the project to date, or confirm in writing that maps, distribution information, and the number of territories that will be impacted by the project as shown in the BA remain correct. | Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| | 1.2 FHWA and/or Caltrans will notify the CFWO within 30 days of completing removal of gnatcatcher occupied habitat in each project phase. The purpose of this notification is to ensure that impacts to gnatcatcher-occupied habitat from the proposed project do not exceed the take exemptions. | Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| | **Light-footed Clapper Rail** | | | | | | | | | |
| BIO-2.2 | 2.1 Prior to initiating each phase of the proposed project, three preconstruction surveys will be conducted within all suitable rail habitat within the footprint for that phase of the project, within 30 days prior to initiation of vegetation removal activities, to verify that no more than one pair in phase 1, two pairs in phase 2, and one pair in phase 3 (unless bridge construction is moved forward in project phasing to avoid impacts to coastal wetlands in which case take of all four pairs of rails would occur in phase 1), with four pairs in total, will be taken as a result of the project. Prior to initiating each phase of the project, FHWA and/or Caltrans will provide to the CFWO a map showing the distribution of rails relative to the project footprint for that phase, an estimate of the number of rail territories that will be impacted by the project in that phase, and the cumulative total of rail territories impacted by the project to date, or confirm in writing that maps, distribution information, and the number of territories that will be impacted by the project as shown in the BA remain correct. | Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| | 2.2 FHWA and/or Caltrans will notify the CFWO within 30 days of completing removal of rail occupied habitat in each project phase. The purpose of this notification is to ensure that impacts to rail-occupied habitat from the proposed project do not exceed the take thresholds. | Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |

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| | **Tidewater Goby** - 3.1 Within 30 calendar days of the completion of project activities within goby habitat, FHWA and/or Caltrans will provide the CFWO with a report documenting the area of goby habitat impacted, the number of dead or injured gobies observed in the action area, and the number of gobies captured and released. The report will include information on the general condition of all gobies that were killed, injured, and captured/released. It will also include an assessment of how or why gobies may have been injured or killed and information on where gobies were captured and released. Caltrans will report incidences of take (observed death or injury or capture and relocation of gobies) to the CFWO within 3 days. All field notes and other documentation generated by the biological monitor will be made available to the CFWO upon request. The purpose of this notification is to ensure that impacts to goby-occupied habitat from the proposed project do not exceed the take thresholds. | Appendix O | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction | | | | | | |
| BIO-2.3 | **DISPOSITION OF SICK, INJURED, OR DEAD SPECIMENS** - Upon locating dead, injured, or sick individuals of threatened or endangered species, initial notification must be made to the Division of Law Enforcement in either San Diego, California, at 619-557-5063 or in Torrance, California, at 310-328-6307 within 3 working days. Notification should also be sent by telephone and writing to the office in Carlsbad, California, at 6010 Hidden Valley Road, Suite 101, Carlsbad, California 92011, 760-431-9440. Written notification must be made within 5 calendar days and include the collection date and time, the location of the animal, and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. The remains of intact specimens shall be placed with educational or research institutions holding the appropriate State and Federal permits. Remains shall be placed with the San Diego Natural History Museum, San Diego. Arrangements regarding proper disposition of potential museum specimens shall be made with the institution by the | Appendix O | Biologist / Resident Engineer / Biological Monitor | Construction | | | | | | |
| BIO-3 | Eelgrass surveys would be completed at all lagoons with the exception of Buena Vista prior to bridge construction. In lagoons where eelgrass is identified in proximity to I-5 widening, eelgrass surveys would continue during and after construction, and mitigation would be implemented in accordance with the Resource Enhancement and Mitigation Program (REMP). | Section 3.17.3 | Biologist / Resident Engineer / Biological Monitor | Pre-construction / Construction / Post-construction | | | | | | |

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| | Impacts to native upland habitats would be mitigated on a corridor-wide basis through the proposed North Coast Corridor REMP. | Section 3.17.3 | Biologist | Design | | | | | | |
| | Any seeding of native upland habitats would be completed between October and February to ensure that the seed has proper conditions for germination. | Section 3.17.3 | Biologist / Biological Monitor | Construction | | | | | | |
| | **Wetlands and Other Waters** | | | | | | | | | |
| BIO-4 | Bioswales/detention basins would be placed in the loop ramps, and bioswales would be placed on slopes (i.e., not at base of slope within lagoons), as appropriate to treat runoff from the freeway. | Section 3.18.4 | Design Engineer | Design | | | | | | |
| | **Sensitive Plant Species** | | | | | | | | | |
| BIO-5a | Seed would be collected or plants would be salvaged to the extent practicable in the impact areas as mitigation. Salvaged plants and seed would be planted in mitigation sites, on revegetated new slopes, or in revegetated areas that were temporarily impacted. The majority of these species could potentially be salvaged or mitigated by planting in an off-site preserve. | Section 3.19.4 | Biologist / Biological Monitor | Construction | | | | | | |
| | **Sensitive Animal Species** | | | | | | | | | |
| BIO-5b | Exclusion devices would be installed on bridge drain holes and ledges during the non-breeding season (September 1 through February 15) to stop swallows, swifts, and any other birds or bats from nesting on or within bridges to be demolished. | Section 3.20.4 | Biologist / Resident Engineer | Construction | | | | | | |
| | In-water construction activities at the San Luis Rey River would take place outside of the steelhead migration window when steelhead adults and juveniles are expected to be using the lower reach of the San Luis Rey River. | Section 3.21.4 | Biologist / Resident Engineer | Construction | | | | | | |
| BIO-5b | Silt curtains, coffer dams, and/or other barriers would be used to prevent steelhead from entering the construction zone and prevent sedimentation and debris from entering the river. | Section 3.21.4 | Biologist / Resident Engineer | Construction | | | | | | |
| | Best management practices would be implemented during construction to minimize impacts on steelhead and aquatic habitat in the San Luis Rey River. These include sediment control measures to minimize erosion and impacts to water quality, measures to prevent debris and fresh concrete from entering the river channel, and fueling and maintenance of heavy machinery in areas away from the river channel and sensitive habitats. | Section 3.21.4 | Biologist / Resident Engineer | Construction | | | | | | |
| BIO-5b | All removal of native vegetation or non-native shrubs and trees located within the impact areas would be completed outside of the bird breeding season (February 15 to August 31), if possible, to avoid impacts to nesting birds. Otherwise, a qualified biologist would thoroughly survey all vegetation prior to removal to ensure there are no nesting birds on site. If nesting birds are identified on site, vegetation removal would be delayed until the chicks have fledged or the nest has failed. | Section 3.21.4 | Biologist / Resident Engineer | Construction | | | | | | |

# **EXHIBIT D –** THE INTERSTATE 5 NORTH COAST CORRIDOR PROJECT – BATIQUITOS LAGOON BRIDGE

## CALIFORNIA STATE LANDS COMMISSION STATEMENT OF FINDINGS

## 1.0 INTRODUCTION

The California State Lands Commission (CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings to comply with CEQA as part of its discretionary approval to authorize issuance of a Public Agency Permit and Right-of-Way maps, to the California Department of Transportation, District 11 (Caltrans), for use of sovereign lands associated with the proposed Interstate 5 North Coast Corridor Project (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines, § 15381.)[1] The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306.) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is a responsible agency under CEQA for the Project because the CSLC must approve a Public Agency Permit and Right-of-Way maps for the Project to go forward and because Caltrans, as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. Caltrans analyzed the environmental impacts associated with the Project in a Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS) (State Clearinghouse [SCH] No. 2004101076) and, in October 31, 2013, certified the EIR/EIS and adopted a Mitigation Monitoring and Reporting Program (MMRP), Findings, and a Statement of Overriding Considerations, and approved the Project.

The Project would maintain or improve the existing and future traffic operations in the Interstate 5 (I-5) North Coast Corridor in San Diego County. Potential Project benefits include improving the safe and efficient regional movement of people and goods, improving community connectivity, improving pedestrian and bicycle facilities, improving lagoon function and providing compatibility with regional multi-modal improvements. The portion of the Project on lands under CSLC jurisdiction involves the widening of the Batiquitos Lagoon bridge and the addition of High Occupancy Vehicle (HOV)/Managed Lanes, as well as pedestrian and bicycle upgrades.

Caltrans determined that the Project could have significant environmental effects on the following environmental resources:

[1] CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.

- Cultural Resources
- Paleontological Resources
- Hazards and Hazardous Materials
- Biological Resources
- Visual/Aesthetics
- Community Character and Cohesion
- Noise

Of the seven resources areas noted above, Project components within the CSLC's jurisdiction (i.e., widening of the Batiquitos bridge) could have significant environmental effects on four of the resource areas, as follows:

- Cultural Resources
- Paleontological Resources
- Biological Resources
- Visual/Aesthetics

In certifying the Final EIR/EIS and approving the Project, Caltrans imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of these mitigation measures such that the impacts would be less than significant for most resource areas.

However, even with the implementation of all feasible mitigation, Caltrans concluded in the EIR/EIS that some of the identified impacts would remain significant. As a result, Caltrans adopted a Statement of Overriding Considerations to support its approval of the Project despite the significant and unavoidable impacts (Attachment D-1). Caltrans determined that, after mitigation, the Project may still have significant impacts on Noise, Community Cohesion, and Visual/Aesthetics. Of these three resources, only significant impacts to Visual/Aesthetic resources may occur on lands under the jurisdiction of the CSLC. According to Caltrans' Findings (p. 36), "Specific to ocean views, view impacts from the project to the coastline, lagoons, and river valleys would be avoided or minimized as a matter of project design. These resources are typically most visible across or below the corridor's large lagoon and river bridges, and these views would be maintained." In addition, Caltrans' Findings state that "The proposed changes to the I-5 right-of-way would be focused and linear in nature, but implementation of any of the build alternatives would result in highly adverse changes to the existing visual environment along the I-5 right-of-way, primarily related to construction of retaining walls and potential soundwalls." Therefore, CSLC staff has determined that the Visual/Aesthetic impact specifically associated with the Batiquitos Lagoon Bridge, which does not involve retaining walls and potential soundwalls, would not remain significant and would be reduced to less than significant with the inclusion of mitigation; as such, a Statement of Overriding Considerations by the CSLC is not necessary.

As a responsible agency, the CSLC complies with CEQA by considering the EIR/EIS and reaching its own conclusions on whether, how, and with what conditions to approve a project. In doing so, the CSLC may require changes in a project to lessen or avoid

the effects, either direct or indirect, of that part of the project which the CSLC will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or Project revisions are implemented, the CSLC adopts the Mitigation Monitoring Program (MMP) as set forth in Exhibit C as part of its Project approval.

## 2.0 FINDINGS

The CSLC's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each "public agency" that approves a project for which an EIR/EIS has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a).) Because the EIR/EIS certified by Caltrans for the Project identifies potentially significant impacts that fall within the scope of the CSLC's approval, the CSLC makes the Findings set forth below as a responsible agency under CEQA. (State CEQA Guidelines, § 15096, subd. (h); *Resource Defense Fund* v. *Local Agency Formation Comm. of Santa Cruz County* (1987) 191 Cal.App.3d 886, 896-898.)

While the CSLC must consider the environmental impacts of the Project as set forth in the EIR/EIS, the CSLC's obligation to mitigate or avoid the direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); State CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g).) Accordingly, because the CSLC's exercise of discretion involves only issuing a Public Agency Permit and Right-of-Way maps for this Project, the CSLC is responsible for considering only the environmental impacts related to lands or resources subject to the CSLC's jurisdiction. With respect to all other impacts associated with implementation of the Project, the CSLC is bound by the legal presumption that the EIR/EIS fully complies with CEQA.

The CSLC has reviewed and considered the information contained in the Project EIR/EIS. All significant adverse impacts of the Project identified in the EIR/EIS relating to the CSLC's approval of a Public Agency Permit and Right-of-Way maps, which would allow Caltrans to widen the Batiquitos Lagoon bridge and add HOV/managed lanes and pedestrian and bicycle upgrades, are included herein and organized according to the resource affected.

These Findings, which reflect the independent judgment of the CSLC, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR/EIS has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. Possible findings on each significant effect are:

(1) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR/EIS.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the CSLC. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR/EIS.[2]

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.

These Findings are based on the information contained in the EIR/EIS and information submitted by the Applicant, all of which is contained in the administrative record. The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the Final EIR/EIS.

The CSLC is the custodian of the record of proceedings upon which its decision is based. The location of the CSLC's record of proceedings is in the Sacramento office of the CSLC, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

## A. SUMMARY OF FINDINGS

Based on public scoping, there are no environmental issue areas in which the Project will have No Impact.

The EIR/EIS subsequently identified the following impacts as Less Than Significant:

- Air Quality
- Energy
- Farmlands/Agricultural Lands
- Floodplains
- Geology and Soils
- Growth
- Hydrology and Water Quality
- Land Use
- Parks and Recreational Facilities
- Pedestrian and Bicycle
- Traffic and Transportation
- Utilities and Emergency Services

For the remaining potentially significant effects, the Findings are organized by significant impacts within the EIR/EIS issue areas as presented below.

[2] See Public Resources Code section 21081, subdivision (a) and State CEQA Guidelines section 15091, subdivision (a).

## B. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts identified below were determined in the Final EIR/EIS to be potentially significant absent mitigation; after application of mitigation, however, the impacts were determined to be less than significant. For the full text of each mitigation measure (MM), please refer to Exhibit C, Attachment C-1.

| | |
|---|---|
| 1. Cultural Resources | CR-1 |
| 2. Paleontological Resources | P-1 |
| 3. Biological Resources | BIO-1, BIO-2, BIO-3, BIO-4, BIO-5 |
| 4. Visual/Aesthetic Resources | AES-1 |

### 1. CULTURAL RESOURCES

**CEQA FINDING NO. CR-1**

Impact: **Impact CR-1.** Implementation of the Project could result in significant impacts to cultural resources if currently unknown archaeological sites are encountered during project construction.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in significant impacts to cultural resources, if currently unknown archaeological sites be encountered during Project construction.

Implementation of MM CR-1 has been incorporated into the Project to reduce this impact to a less-than-significant level.

**MM CR-1: Cultural Resource Measures.**

- A “qualified” archaeological monitor and a Native American monitor will be present at AMA and ESA locations during construction activities.
- The archaeologist and Native American monitor will work with Caltrans Construction Liaison to accurately delineate the boundaries of those sites requiring the establishment of Environmentally Sensitive Areas (ESAs). Fencing will be placed around ESA sites, as appropriate. ESA sites will be avoided by all construction activity.
- If unanticipated discoveries occur, Section 106 consultation with the State Historic Preservation Officer (SHPO) will be reopened, if appropriate. If cultural materials are discovered during construction, all earth-moving activity

within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

- If unanticipated human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities will cease in any area or nearby area suspected to overlie remains, and the County Coroner will be contacted. Provisions of PRC 5097.98 will be followed, as applicable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

## 2. PALEONTOLOGICAL RESOURCES

**CEQA FINDING NO. P-1**

Impact: **Impact P-1.** Direct impacts to paleontological resources could occur when mass grading cuts extend into geological deposits containing fossils. Although the precise types, depths, and locations of various construction activities are not known at this time, unearthing of paleontological resources is anticipated.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in in significant impacts to paleontological resources, should fossils be discovered during grading cuts.

Implementation of MM P-1 has been incorporated into the Project to reduce this impact to a less-than-significant level.

**MM P-1: Paleontological Resource Measures.** The paleontological mitigation program will consist of monitoring, fossil salvage, macrofossil and microfossil analysis, fossil preparation, report preparation, and curation, as summarized below.

*Monitoring*

- A paleontological monitor, under the direction of the qualified principal paleontologist, will be on site to inspect cuts for fossils at all times during original grading involving sensitive geologic formations.

*Macrofossil/Microfossil Salvage/Analysis*

- When fossils are discovered, the paleontologist (or paleontological monitor) will recover them. Construction work in these areas will be halted or diverted to allow recovery of fossil remains in a timely manner.
- Fossil remains collected during the monitoring and salvage portion of the mitigation program will be prepared, sorted, and cataloged.

*Report Preparation*

- A Paleontological Mitigation Monitoring Report (PMMR) will be prepared by a qualified principal paleontologist to document the results of the mitigation program, including construction monitoring, fossil salvage, laboratory preparation of salvaged specimens, curation of prepared specimens, and storage of curated specimens.

*Curation*

- Although all fossils collected remain the property of the State, the collection must be properly curated at an approved facility (preferably local to the project location) and preserved for future researchers. A complete set of field notes, geologic maps, stratigraphic sections, and a copy of the final report will be curated with the fossils.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

## 3. BIOLOGICAL RESOURCES

| **CEQA FINDING NO. BIO-1** | |
|---|---|
| Impact: | **Impact BIO-1.** Implementation of the Project would result in potentially significant impacts to a number of sensitive native and non-native communities. |
| Finding(s): | (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS. |

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in significant impacts to a number of sensitive native and non-native communities, including riparian, wetland, and eelgrass habitat. Eelgrass habitat was mapped within the Batiquitos Lagoon in April 2006. In total, the preferred alternative would result in 0.22 acre of temporary impacts to eelgrass and 0.08 acre of permanent impacts to eelgrass, for all lagoons.

Implementation of MMs BO2, BO3, BO4, BO7 through BO12, BO15 through BO34, BO42, and BO43 has been incorporated into the Project to reduce this impact to a less-than-significant level.

**BO2.** No riprap will be used in channel bottoms for bridge construction to minimize impacts to aquatic habitats.

**BO3.** Retaining walls 6 feet or lower in height will be used as feasible on fill slopes within lagoons to minimize impacts to aquatic habitats from the bike / pedestrian path. Retaining walls will also be used as feasible on cut slopes through coastal mesas to minimize project impacts to sensitive upland habitats.

**BO4.** The I-5 lagoon bridges will be lengthened to accommodate a channel bottom width of at least 261, 134, and 105 feet at San Elijo, Batiquitos, and Buena Vista Lagoons, respectively, consistent with the recommendations in the lagoon bridge optimization studies.

**BO7.** Permanent project lighting will be of the lowest illumination necessary for safety and will be directed toward the roadway, Park and Rides, and other project facilities, and away from sensitive habitats. With the exception of pathway lighting for the North Coast (NC) Bike Trail, there will be no night lighting of trails within lagoons, wildlife corridors, and sensitive habitat areas. Pathway lighting for the NC Bike Trail will be of the lowest illumination necessary for safety and will be designed to avoid light spill into adjacent sensitive habitats and wildlife movement areas.

**BO8.** All pedestrian trails and bike paths will be fenced in a manner that will encourage users to remain on the trails and paths.

**BO9.** The following wildlife connectivity features will be constructed to ensure that ecosystem functions are maintained for the benefit of listed species:

e. At Batiquitos Lagoon, a 16-foot-wide wildlife bench will be constructed on the south bridge abutment and a 16-foot wide pedestrian path will be maintained on the north bridge abutment that is expected to provide for wildlife movement at night and during flood events.

i. Bridges where wildlife movement is expected will use columns rather than pier walls to improve visibility and openness and encourage usage by wildlife, including Carmel Creek, Los Peñasquitos and Soledad Creeks, and all lagoons (with the exception of San Dieguito Lagoon and the San Luis Rey River where pier walls may be required for stability).

j. To the maximum extent feasible, rock slope protection will be avoided at wildlife benches. If rock slope protection is required, modifications (e.g., small pebble, dirt, soil covered rip rap, or grouted movement pathways) will be made such that animals of all sizes can use the wildlife benches.

k. Monitoring will be conducted on the effectiveness of the wildlife connectivity features such that the effectiveness of wildlife connectivity features can be improved and to inform decision-making for future projects. This monitoring will include research on the degree to which various undercrossings are used by target species.

l. Wildlife benches will be maintained to ensure that wildlife connectivity in the project area is not lost over time. The wildlife connectivity plan will include a detailed explanation of how wildlife benches will be maintained and how the maintenance will be funded.

**BO10.** Caltrans will submit final project design plans to the Carlsbad Fish and Wildlife Office (CFWO) for review and approval, based on the draft plans dated August 22, 2012, with the following revisions: 2) gateway undercrossings and overcrossings adjacent to lagoons will not include decorative night lighting or vertical features that may be used as a perch by raptors to prey upon listed species; 3) the design and elevation of suspended pedestrian bridges will not impede access by maintenance dredges at lagoons; and 6) plans will specify that the height of vegetation planted near coastal lagoons will be limited (e.g., coastal sage and chaparral species up to approximately 8 feet in height) to prevent perching and predation by raptors on listed species.

**BO11.** Because the project is expected to start in 2014 and be phased over approximately 21 years, Caltrans will conduct updated surveys for the gnatcatcher, rail, and manzanita within 1 year prior to the commencement of vegetation clearing and construction activities for each project phase to ensure that survey information remains up to date.

**BO12.** Caulerpa taxifolia surveys will be completed before and after construction at each of the lagoons to ensure there is no infestation within project limits. If Caulerpa taxifolia is found, measures will be implemented to eradicate it from the area.

**BO15.** The clearing and grubbing of native wetland and riparian habitats will occur between September 16 and March 14 and the clearing and grubbing of native upland habitats for the project will occur between September 1 and February 14, to avoid the rail and gnatcatcher breeding seasons.

**BO16.** Pile driving for bridge construction near the lagoons and San Luis Rey River will be completed between September 16 and February 14 to minimize construction noise impacts to rail and gnatcatcher breeding. Pile driving may commence earlier in the fall if a biologist knowledgeable of gnatcatcher and rail biology and ecology approved by the CFWO demonstrates to the satisfaction of the CFWO that all rail and gnatcatcher breeding is complete within the area where construction noise will exceed ambient levels as a result of pile driving.

**BO17.** Noise barriers will be installed at the edge of temporary impact areas near sensitive resources where feasible depending on inundation and effective heights

required for walls. Noise walls would not be effective where fill slopes are significantly higher than impact areas.

**BO18.** All construction equipment used for the project will be equipped with properly operating and maintained mufflers.

**BO19.** During in-water bridge construction activities at all lagoons and the San Luis Rey River, bubble curtains or other methods to minimize acoustical impacts to aquatic species will be implemented. These measures will be developed in coordination with the CFWO when project design and construction methodology is further developed.

**BO20.** If nighttime construction is necessary, all lighting used at night for project construction (e.g., staging areas, equipment storage sites, roadway) will be selectively placed and directed onto the roadway or construction site and away from sensitive habitats. Light glare shields will be used to reduce the extent of illumination into sensitive habitats.

**BO21.** Appropriate best management practices (BMPs) will be used to control erosion and sedimentation and to capture debris and contaminants from bridge demolition and construction to prevent their deposition in coastal lagoons and waterways. No sediment or debris will be allowed to enter lagoons, creeks, rivers, or other drainages. Appropriate BMPs will be used during construction to limit the spread of resuspended sediment and contain debris. These may include cofferdams, blasting mats, silt curtains, turbidity curtains and/or other barriers.

**BO22.** Erosion and sediment control devices used for the proposed project, including fiber rolls and bonded fiber matrix, will be made from biodegradable materials such as jute, with no plastic mesh, to avoid creating a wildlife entanglement hazard.

**BO23.** All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities will be restricted to designated areas that are a minimum of 100 feet from drainages / lagoons and associated plant communities, to preclude adverse water quality impacts. Fuel cans and fueling of tools will not be allowed inside the drainages.

**BO24.** Impacts from fugitive dust will be avoided and minimized through watering and other appropriate BMPs.

**BO25.** Cationic polymers are attracted to the hemoglobin in fish gills and can cause suffocation at relatively low concentrations. Cationic polymers will not be used for dust control.

**BO26.** Bioswales and detention basins will be placed to avoid impacts to wetlands (e.g., these features will not be located at the base of slope within lagoons).

**BO27.** The project site will be kept as clear of debris as possible. All food-related trash items will be enclosed in sealed containers and regularly removed from the site. All spoils and material disposal will be disposed of properly.

**BO28.** If fill must be borrowed from or disposed of offsite, the construction contractor will identify any necessary borrow and disposal sites and provide this information to Caltrans for review.

**BO29.** Contractors and construction personnel will strictly limit their activities, vehicles, equipment, and construction materials to the fenced project footprint.

**BO30.** Project personnel will be prohibited from bringing domestic pets to construction sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent habitats.

**BO31.** A CFWO-approved biologist (Biological Monitor*) will be on site during: a) initial clearing and grubbing; and b) weekly during project construction within 500 feet of offsite gnatcatcher, rail, goby, and manzanita habitat to ensure compliance with all conservation measures. (*The Biological Monitor will be familiar with the federally listed species potentially affected by the project [i.e., gnatcatcher, rail, goby and Manzanita] and with the habitats that support these species). The Biological Monitor and a Caltrans Project Biologist* will be available during pre-construction and construction phases to review grading plans, address protection of sensitive biological resources, monitor ongoing work, and maintain communications with the Resident Engineer to ensure that issues relating to biological resources are appropriately and lawfully managed. (*The Caltrans Project Biologist will be a Caltrans biologist familiar with the federally listed species potentially affected by the project and with the habitats that support these species; he/she will be the primary contact for the CFWO during project implementation). The Biological Monitor will perform the following duties:

a. Perform a minimum of three focused preconstruction surveys, on separate days, to determine the presence of gnatcatchers or rails in the project impact footprint. If any gnatcatchers or rails are found in the project impact footprint, the Biological Monitor will direct construction personnel to begin vegetation clearing / grubbing in an area away from the gnatcatchers and/or rails. It will be the responsibility of the Biological Monitor to ensure that gnatcatchers and rails will not be injured or killed by vegetation clearing / grubbing. The Biological Monitor will also record the number and location of gnatcatchers and rails disturbed by vegetation clearing / grubbing. Caltrans will notify the CFWO at least 7 days prior to vegetation clearing / grubbing to allow the CFWO to coordinate with the Caltrans Project Biologist on potential bird flushing activities;

b. Oversee installation of and inspect the construction fencing and erosion control measures a minimum of once per week to ensure that any breaks in the fencing or erosion control measures are repaired immediately and that rails have not entered the project impact footprint;

d. Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust;

e. Train all contractors and construction personnel on the biological resources associated with the project and ensure that training is implemented by construction personnel;

f. Request that the Resident Engineer halt work, if necessary, and confer with the Caltrans Project Biologist and the CFWO to ensure the proper implementation of species and habitat protection measures. The Caltrans Project Biologist will report any noncompliance issue to the CFWO within 24 hours of its occurrence;

g. Monitor the project site immediately prior to and during construction to identify the presence of invasive weeds and recommend measures to avoid their inadvertent spread in association with the project;

h. Submit monthly email reports (including photographs of impact areas) to the Caltrans Project Biologist during clearing of, and construction within, 500 feet of gnatcatcher, rail, and manzanita habitats. The monthly reports will document that authorized impacts were not exceeded and general compliance with all conditions; and

i. Submit a final report to Caltrans Project Biologist within 120 days of the completion of construction for each project phase that includes: photographs of habitat areas that were to be avoided and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all conservation measures was achieved. As-built construction drawings with an overlay of habitat that was impacted and avoided will be provided as well once they have been completed. The Caltrans Project Biologist will review the report and forward it to the CFWO.

**BO32.** All native or sensitive habitats outside and adjacent to the permanent and temporary construction limits will be designated as Environmentally Sensitive Areas (ESAs) on project maps. ESAs will be temporarily fenced during construction with orange plastic snow fence, orange silt fencing, or in areas of flowing water, with stakes and flagging. No personnel, equipment or debris will be allowed within the ESAs.

**BO33.** During project construction all invasive species included on National Invasive Species Management Plan, the State of California Noxious Weed List, and the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory list found growing within the project right-of-way will be removed.

**BO34.** A channel large enough for fish and rail movement will be kept open throughout project construction in the San Luis Rey River and each of the lagoons. Prior to initiation of construction in the San Luis Rey River and each of the lagoons, Caltrans will submit a plan to the CFWO for maintaining a channel for fish and/or rail movement in the San Luis Rey River and each of the lagoons.

**BO42.** All areas of temporary impact, will be revegetated and restored with native species. These areas will be returned to original grade, as feasible.

**BO43.** Cut and fill slopes adjacent to native habitats will be revegetated with native habitats with similar composition to those within the project study area as feasible, including over 86 acres of slopes near lagoons and other open space that will be revegetated with coastal sage scrub. Bioswales and detention basins will be planted with appropriate species as determined in coordination with the Caltrans Project Biologist and storm water pollution prevention professional. These areas will be planted as soon as possible following completed construction to prevent encroachment by nonnative plants.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

**CEQA FINDING NO. BIO-2**

Impact: **Impact BIO-2.** Implementation of the Project would result in the Incidental take of Coastal California Gnatcatcher and Light-footed Clapper Rail.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in incidental take of California gnatcatcher and light-footed clapper rail at Batiquitos Lagoon. A 2011 survey at Batiquitos Lagoon identified light-footed clapper rail adjacent to the La Costa park and ride, and next to the freeway slope northeast of the bridge. Critical habitat for California gnatcatcher exists just south of Batiquitos lagoon.

Implementation of MMs 2.1, 2.2, and 2.3 has been incorporated into the Project to reduce this impact to a less-than-significant level.

**MM BIO-2.1. Reasonable and prudent measures for Coastal California Gnatcatcher.**

- FHWA and/or Caltrans will monitor and report on compliance with the established take exemptions for gnatcatchers associated with the proposed action.
- Prior to initiating each phase of the proposed project, three preconstruction surveys will be conducted within all suitable gnatcatcher habitat within the footprint for that phase of the project, within 30 days prior to initiation of vegetation removal activities, to verify that no more than 6 gnatcatcher pairs in phase 1, 8 gnatcatcher pairs in phase 2, and 1 gnatcatcher pair in phase 3 (unless bridge construction is moved forward in project phasing to avoid impacts to coastal wetlands in which case take of 4 pairs of gnatcatchers

would be advanced from phase 2 to phase 1), with 15 pairs in total, will be taken as a result of the project.

- FHWA and/or Caltrans will notify the CFWO within 30 days of completing removal of gnatcatcher occupied habitat in each project phase. The purpose of this notification is to ensure that impacts to gnatcatcher-occupied habitat from the proposed project do not exceed the take exemptions.

**MM BIO-2.2. Reasonable and prudent measures for Light-footed Clapper Rail.**

- FHWA and/or Caltrans will monitor and report on compliance with the established take exemptions for rails associated with the proposed action.
- Prior to initiating each phase of the proposed project, three preconstruction surveys will be conducted within all suitable rail habitat within the footprint for that phase of the project, within 30 days prior to initiation of vegetation removal activities, to verify that no more than one pair in phase 1, two pairs in phase 2, and one pair in phase 3 (unless bridge construction is moved forward in project phasing to avoid impacts to coastal wetlands in which case take of all four pairs of rails would occur in phase 1), with four pairs in total, will be taken as a result of the project.
- FHWA and/or Caltrans will notify the CFWO within 30 days of completing removal of rail occupied habitat in each project phase. The purpose of this notification is to ensure that impacts to rail-occupied habitat from the proposed project do not exceed the take thresholds.

**MM BIO-2.3. Disposition of Sick, Injured, or Dead Specimens.**

Upon locating dead, injured, or sick individuals of threatened or endangered species, initial notification must be made to the Division of Law Enforcement in either San Diego, California, at 619-557-5063 or in Torrance, California, at 310-328-6307 within 3 working days. Notification should also be sent by telephone and writing to the office in Carlsbad, California, at 6010 Hidden Valley Road, Suite 101, Carlsbad, California 92011, 760-431-9440. Written notification must be made within 5 calendar days and include the collection date and time, the location of the animal, and any other pertinent information. Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. The remains of intact specimens shall be placed with educational or research institutions holding the appropriate State and Federal permits.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

**CEQA FINDING NO. BIO-3**

Impact: **Impact BIO-3.** Implementation of the Project would result in potentially significant impacts to eelgrass.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project, including widening the Batiquitos bridge have the potential to result in significant impacts to eelgrass beds. As mentioned in CEQA Finding number BIO-1, eelgrass habitat was mapped within Batiquitos Lagoon in April 2006.

Implementation of MM BIO-3 has been incorporated into the Project to reduce this impact to a less-than-significant level.

**MM BIO-3: Eelgrass Surveys**. Eelgrass surveys will be completed at all lagoons with the exception of Buena Vista prior to bridge construction. In lagoons where eelgrass is identified in proximity to I-5 improvements, eelgrass surveys will continue during and after construction, and mitigation will be implemented in accordance with the Resource Enhancement and Mitigation Program.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

**CEQA FINDING NO. BIO-4**

Impact: **Impact BIO-4.** Implementation of the Project would result in potentially significant impacts to Wetlands and Other Waters.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in impacts to wetlands or other waters. Construction of the Preferred Alternative would result in permanent impacts to 2.89 acres of wetlands and 0.24 acre of other waters at Batiquitos Lagoon. In addition, permanent shading impacts would occur on 0.37 acre of wetlands and other waters.

In addition to the MMs identified above under impact BIO-1, implementation of MM BIO-4, has been incorporated into the Project to reduce this impact to a less-than-significant level.

**MM BIO-4: Bioswales and Detention Basins.** Bioswales/detention basins would be placed in the loop ramps, and bioswales would be placed on slopes (i.e., not at base of slope within lagoons), as appropriate to treat runoff from the freeway.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

**CEQA FINDING NO. BIO-5**

Impact: **Impact BIO-5.** Implementation of the Project would result in potentially significant impacts to Sensitive Plants, Animals, and Threatened and Endangered Species.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in significant impacts to a number of sensitive (including threatened and endangered) plant and animal species, whose ranges and numbers have been reduced due to past disturbance by urban development and related infrastructure, including I-5. A number of indirect impacts to threatened and endangered species would also result from the Project, including effects related to increases in lighting, exposure to invasive species, potential for pollution from runoff, and long term noise levels, as well as edge effects.

In addition to the MMs identified above under Impact BIO-1, implementation of MMs BIO-5a and BIO-5b has been incorporated into the Project to reduce this impact to a less-than-significant level.

**MM BIO-5a: Sensitive Plant Species.** Seed will be collected or plants will be salvaged to the extent practicable in the impact areas as mitigation. Salvaged plants and seed will be planted in mitigation sites, on revegetated new slopes, or in revegetated areas that were temporarily impacted. The majority of these species could potentially be salvaged or mitigated by planting in an off-site preserve.

**MM BIO-5b: Sensitive Animal Species.** To minimize impacts to migratory birds, construction will not occur in more than two lagoons at any one time. Exclusion devices will be installed on bridge drain holes and ledges during the non-breeding season (September 1 through February 15) to stop swallows, swifts, and any other birds or bats from nesting on or within bridges to be demolished.

- Silt curtains, coffer dams, and/or other barriers will be used to prevent steelhead from entering the construction zone and prevent sedimentation and debris from entering the river.

- All removal of native vegetation or non-native shrubs and trees located within the impact areas will be completed outside of the bird breeding season (February 15 to August 31), if possible, to avoid impacts to nesting birds. Otherwise, a qualified biologist will thoroughly survey all vegetation prior to removal to ensure there are no nesting birds on site. If nesting birds are identified on site, vegetation removal will be delayed until the chicks have fledged or the nest has failed.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

## 4. VISUAL/AESTHETICS

| **CEQA FINDING NO. AES-1** | |
|---|---|
| Impact: | **Impact AES-1.** Impacts to visual and aesthetic resources as they relate to the Project on lands under the jurisdiction of the CSLC (Overcrossing, Undercrossing, Bridge, and DAR (Direct Access Ramp) Structures). |
| Finding(s): | (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR/EIS. |

FACTS SUPPORTING THE FINDING(S)

The following mitigation measures, which are referenced in Section 3.7.4 of the Final EIR/EIS and detailed in CSLC's MMP(adopted as part of this Project approval as Exhibit C), will be implemented as part of the Project. For the overall Project, Caltrans found that even with implementation of the stated mitigation, the impact would not be reduced to a less than significant level. As discussed in Section 1.0 Introduction, the CSLC has determined that the Visual/Aesthetic impact specifically associated with the Batiquitos Lagoon Bridge, which does not involve retaining walls and potential soundwalls, would not remain significant and would be reduced to less than significant with the inclusion of mitigation.

**MM AES-1: Visual Mitigation**.

- Visual mitigation will consist of adhering to design requirements in consultation with the District 11 DLA and following the Design Guidelines: I-5 NCC Project.
- During project design and construction, the DLA will analyze the visual effects of specific project features, synthesize applicable mitigation measures from this document and the Design Guidelines: I-5 NCC Project, apply those requirements to actual design features in specific locations, and submit proposals to the project design team. The team and DLA will then develop design solutions considered to be reasonable visible mitigation solutions that achieve team consensus, and can in turn be implemented. The DLA also will

provide technical assistance during construction and perform mitigation monitoring of all visual mitigation requirements.

- Caltrans will consult with the property owners and/or officials with jurisdiction over recreational areas during project design for potential aesthetic options, as applicable.
- Mitigation measures that require regular maintenance and are located outside Caltrans right-of-way, such as trees planted along local streets, or measures that require the installation of non-standard equipment within the right-of-way such as pedestrian bridge lighting, can be implemented only if the responsible local government is willing to maintain them in perpetuity.

**MM AES-1b. Overcrossing, Undercrossing, Bridge, and DAR Structures.** The visual mitigation in regards to "Overcrossing, Undercrossing, Bridge, and DAR Structures" consists of adhering to the following design requirements:

- Bridge type selection and all other structure design will be consistent with the design themes contained in the Design Guidelines: I-5 NCC Project.
- Wherever possible, abutments will be short seat abutments placed at the top of slopes.
- At each overcrossing, bridge abutments will be of the same type to produce a symmetrical appearance.
- In locations where retaining walls must be incorporated into abutments, they will be designed as terrain-contoured walls if possible, and located away from the edge of shoulder to allow space for a planted buffer at their base.
- Slope paving will be enhanced with integral concrete color, texture, and deeply textured facing materials such as veneer block or natural rock.
- Bridge signage will be designed to visually integrate with bridge architecture. Concrete sign pedestals will be consistent in appearance with bridge design themes.
- Sidewalks will be provided on both sides of each overcrossing. They will have a 6-feet minimum width on a two-lane structure with a curb-to-curb width of 32 feet or less.
- Wherever possible, low profile barrier separations between pedestrian and vehicular traffic will be provided on overcrossings where Caltrans policy prohibits or restricts architectural features and pedestrian amenities on or near concrete bridge rails. Sidewalks in these locations will be a minimum of 10 feet in width.
- Pedestrian lighting, enhanced fencing and railings, and other urban amenities will be provided on each overcrossing whenever feasible.
- Where possible, bicycle shoulders, lanes, or paths will be provided on both sides of each overcrossing. A minimum shoulder width of four feet will be provided for Class III facilities.

- Bridge abutments will be of the same type on all four quadrants to give widened undercrossings a symmetrical appearance.
- Bridge widening will be done using box girder construction wherever possible. Girders will be similar in appearance on both sides of the bridge to produce a symmetrical appearance.
- In locations where street widening occurs, tie-back walls will be terrain contoured walls, and receive architectural features consistent with those required for retaining walls and with community values and goals.
- Pedestrian sidewalks 10 feet in width (minimum) will be provided at undercrossings on both sides of the street wherever possible. In all cases, existing sidewalk configurations on local streets will be continued across Caltrans right-of-way.
- Bicycle shoulders, lanes, or paths will be provided at each undercrossing. The type of facility will consider regional and local planning goals. A minimum shoulder width of 4 feet will be provided for Class III facilities.
- Enhanced pedestrian lighting including bridge soffit lighting will be provided at each undercrossing.
- Slope paving at undercrossings will be enhanced with deeply textured facing materials such as scored veneer block or natural rock to add visual interest and deter graffiti.
- Mitigation measures listed for overcrossing and undercrossing structure symmetry, abutment design, tie back walls, slope paving, sidewalks, bicycle routes, and streetscape features will also apply to freeway bridges as appropriate.
- See-through bridge rails such as Caltrans Type 80 rail will be used on freeway bridges with views to ocean, rivers, lagoons, or other scenic resources, unless noise abatement is necessary.
- Pedestrian overcrossings will be a minimum of 15 feet in width.
- Pedestrian lighting, enhanced fencing, railings, architectural features, and other urban amenities will be provided on each pedestrian overcrossing. Existing streetscape elements and design themes will be continued within Caltrans right-of-way.
- DAR retaining walls will have a 15-foot maximum height, allowing approximately 10 feet of minimum vertical clearance under the connecting ramp structure.
- Pedestrian and bicycle traffic on existing overcrossings to be converted to DAR overcrossings will be routed to a separate pedestrian overcrossing structure in the immediate vicinity, if possible.
- On structures where pedestrians are present, sidewalks will be 15 feet in width on each side. Bridge barriers, fences, and sidewalks will be designed to

provide standard stopping sight distance at DAR termini to enable pedestrians to be visible to drivers.

- Bicycle shoulders, lanes, or paths will be provided on both sides of each DAR overcrossing open to non-vehicular traffic. The type of facility will consider regional and local planning goals. A minimum shoulder width of 4 feet will be provided for Class III facilities.
- Pedestrian lighting, enhanced fencing and railings and other urban amenities will be provided on each DAR local street overcrossing and be consistent with local values and goals.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

# ATTACHMENT D-1

# California Department of Transportation Findings Regarding Alternatives and Statement of Overriding Considerations

**CALIFORNIA DEPARTMENT OF TRANSPORTATION**

**STATEMENT OF OVERRIDING CONSIDERATIONS FOR**

**THE INTERSTATE 5 NORTH COAST CORRIDOR PROJECT**

**IN SAN DIEGO COUNTY, CALIFORNIA**

The following information is presented to comply with Section 15093 of the State California Environmental Quality Act (CEQA) Guidelines, and Section 1509.6 of the Department of Transportation (Caltrans) and California Transportation Commission Environmental Regulations. Reference is made to the Interstate 5 (I-5) North Coast Corridor (NCC) Project Final Environmental Impact Report/Environmental Impact Statement (Final EIR/EIS), which is the basic source for information contained in this Statement of Overriding Considerations (SOC).

The following impacts have been identified as significant and not fully mitigable in the *I-5 NCC Project* Final EIR/EIS:

- Community Cohesion under the 10+4 Barrier alternative
- Visual/Aesthetics for all alternatives
- Isolated noise impacts for all alternatives

Although mitigation measures are proposed for these issues, their implementation would not fully mitigate impacts; these impacts would remain significant and unmitigable.

Noise (project level only)

Overall, 97 percent of the total modeled receptors along the *I-5 NCC Project* (all except for 16 receptors representing 74 units) could receive noise mitigation incorporated into the project or not require such mitigation under CEQA. For the remaining approximately three percent of the modeled receptors, implementation of soundwalls to reduce increased noise levels under CEQA is not planned as part of the project. In addition, for the 58 receptors (representing 231 units) identified as potentially experiencing future noise level increases that would be considered significant under CEQA, the potential exists for the proposed mitigation to be rejected by property owner(s) and for the noise level increases due to the project to remain significant and unmitigated under CEQA.

Community Cohesion (project level only, 10+4 Barrier alternative only)

Implementation of the 10+4 Barrier alternative would displace a 47-unit apartment complex in the northern portion of the City of Carlsbad, within an area identified as exhibiting traits of elevated community cohesion: namely, a relatively high concentration of linguistically isolated Spanish-speaking households, as well as a high proportion of minority populations. Displaced residents living in these 47 units may be difficult to relocate within a similar community, as the availability of apartments within the City of Carlsbad with similar rental rates is not adequate. If relocation is not feasible in Carlsbad and up to 47 families are relocated outside of the community, this may significantly impact community cohesion in the area.

Visual/Aesthetics (project and cumulative levels)

From a project-level perspective, implementation of any of the build alternatives would result in highly adverse changes to the existing visual environment along and adjacent to the I-5 right-of-way, primarily related to construction of retaining walls and potential soundwalls. The increase in build elements under all of the build alternatives would substantially degrade the existing visual character of the I-5 corridor, and would result in potentially significant project-level impacts under CEQA to I-5 views. A number of changes or alterations have been incorporated into the project to avoid or reduce environmental effects, although not to below a level of significance. Specifically, these measures include extensive use of landscaping to replace, supplement and/or expand current landscaped areas within the project corridor; avoiding/redesigning structures in scenic viewsheds (e.g., areas with ocean/lagoon views) where feasible; use of color/texture treatments for structures (e.g., retaining and soundwalls); inclusion of transparent soundwall materials where feasible to retain views; and use of landscaped berms (rather than walls) for noise abatement where feasible. Despite these efforts, however, significant visual/aesthetic impacts would remain, and additional measures or alternatives that would reduce visual/aesthetic impacts to below a level of significance would be infeasible due to the nature of, and inherent requirements associated with, widening an existing interstate in a scenic area.

Cumulatively, the proposed project, in combination with other anticipated development in the *I-5 NCC Project* area and vicinity, would change the local visual environment from semi-urban to a more developed urban setting. The changes to the visual resource of the area brought about by these planned projects, including the *I-5 NCC Project,* would constitute cumulatively considerable contributions to potentially significant cumulative visual/aesthetics impacts. While this change has been previously contemplated in local planning documents and environmental analyses conducted for local development, it would nevertheless represent a significant cumulative visual impact for which no feasible mitigation measures are available. For the I-*5 NCC Project*, this conclusion is based on the nature and inherent requirements of widening an existing interstate in a scenic area, as previously noted for project-level impacts. Mitigation for cumulative visual impacts by other projects is governed by the project proponents and the associated local jurisdictions with authority over the projects. Potential measures to avoid or reduce such impacts include implementation of local land use plans and environmental guidelines, which provide for orderly, timely, and environmentally-sensitive land use development. While the design and mitigation measures listed in the *I-5 NCC Project* Final EIR/EIS would serve to minimize project-specific impacts as previously described, cumulative visual/aesthetics impacts under CEQA would remain significant, unavoidable, and unmitigable.

**Overriding Considerations**

Having considered all of the foregoing, Caltrans finds that overriding economic, legal, social, technological, or other benefits of the project outweigh the aforesaid significant and unavoidable focused noise, community cohesion (10+4 Barrier alternative), and visual effects on the environment. A discussion of project background, need, and benefits is provided below, to outline the overriding considerations that support approval of this recommended project.

Project Background and Need

I-5 is the main north-south coastal corridor connecting San Diego County and Mexico with Orange County, the Los Angeles Metropolitan area, and (beyond) to the Canadian border. Since original construction of the I-5 freeway, traffic conditions have worsened but only minimal improvements have been constructed within the project corridor. I-5 is also a critical transportation link for national defense and transportation security, providing direct and indirect access to major military installations in the southwestern United States, and is identified as a Strategic Highway Network link to provide defense access, continuity, and emergency capabilities for movement of personnel and equipment in both peace and war times.

Studies of the project area show that increased demand on the route is primarily due to regional population growth, increased goods movement, increased economic growth, and greater recreational and tourism demand. Growth forecasts for San Diego County and the surrounding regions indicate that these trends will continue over the coming decades. Traffic forecasting for the region shows that if no improvements are made to I-5, traffic conditions will continue to deteriorate. Specifically, the following increases in traffic volumes and travel times are projected by the year 2035[1] with no improvements to I-5:

- Near the northern terminus of the *I-5 NCC Project* corridor (Harbor Boulevard), northbound traffic volumes (vehicles per day [VPD]) would increase by 56 percent (from 62,600 to 97,600), while southbound VPD would increase by nearly 68 percent (from 60,000 to 100,500).

- Near the southern terminus of the *I-5 NCC Project* corridor (La Jolla Village Drive), northbound VPD would increase by 28 percent (from 87,200 to 111,500), while southbound VPD would increase by 50 percent (from 82,500 to 123,150).

- The base year (2006) time required to travel the project area (i.e., terminus to terminus) during the a.m. peak hours varies from 24 to 25 minutes in the northbound direction, and from 31 to 44 minutes in the southbound direction. By 2035, these times would increase to 29 to 37 minutes for northbound traffic, and 53 to 54 minutes in the southbound direction.

- The base year time required to travel the project area during the p.m. peak hours varies from 33 to 39 minutes in the northbound direction, and from 27 to 32 minutes for southbound traffic. By 2035, these times would increase to 67 to 69 minutes for northbound traffic, and 40 and 48 minutes in the southbound direction.

Given these existing and projected levels of traffic and congestion, almost certain future gridlock is anticipated with no improvements to I-5. This would cause impacts on route operations and the ability to provide for the effective movement of people, goods, and

[1] The Project Team determined that the initial Series 2030 forecasted traffic volumes, which provided the basis of the original traffic studies, were indicative of year 2035 volumes (within 3.5 percent) and that revision would not alter the results of the associated studies.

services through and within the region; and could have profound economic and strategic consequences within both the region and the State.

The *I-5 NCC Project* is one element of a larger transportation upgrade being planned for the region. This plan is being developed by the San Diego Association of Governments (SANDAG), with support and input from other transportation agencies and local planning jurisdictions. The SANDAG Regional Transportation Plan (RTP) program is reviewed and updated approximately every four years so that the planned projects are consistent with the land use planning agencies current vision for the region. Building on the current transportation system with funding anticipated over the next 37 years, the 2050 RTP[2] outlines projects for highways, rail and bus services, local streets, bicycle and pedestrian facilities, and systems and demand management. Based on regional growth projections, upgrades to each of these modes of travel are needed to accommodate future transportation needs. I-5 improvements, including the improvements evaluated in the Final *I-5 NCC Project* EIR/EIS, are specifically identified in the 2050 RTP. The RTP includes a planning process known as the Urban Area Transit Strategy, which involves developing a range of differing transit strategies and approaches to determine what kind of transit future would be desired for the San Diego region. This process resulted in a transit network that would nearly triple the number of transit miles in the San Diego region by 2050, with a regional goal for transit facilities to increase transit ridership from approximately 2 percent to up to 15 percent of the North Coast Corridor transportation network during that timeframe. Transit alternatives, however, while comprising a valuable part of the overall regional transportation solution, would not, in and of themselves, fully meet the objectives of the *I-5 NCC Project.* They would not, for example, adequately provide for the regional or interregional movement of goods, time-efficient local trips by area residents to multiple locations in different directions, convenient destination access for tourists constrained by time or hotel location, or interregional trips where the destination is not adequately served by mass transit.

Based on the above discussions, the *I-5 NCC Project* is one part of an integrated, multimodal transit and transportation system which has been developed at the regional level to accommodate future transportation needs and decision making. The noted regional transportation studies identified a wide range of networks, including several (revenue) unconstrained transit network alternatives that encompassed more extensive transit systems and capacities. The studies determined, however, that these alternatives would not provide significantly better transit ridership in the North Coast Corridor than what is proposed under the described 2050 Revenue Constrained RTP system that includes the I-*5 NCC Project* and a substantially enhanced transit network. Accordingly, the proposed *I-5 NCC Project* is considered a vital element in the overall strategy to provide a regional multimodal transportation network capable of meeting regional demands while encompassing a balance of highway, transit, bicycle and pedestrian facilities.

[2] On December 20, 2012, the San Diego Superior Court entered a judgment finding that the EIR for the 2050 RTP is legally inadequate with regard to greenhouse gas emissions. Although the judgment may be overturned on appeal, the *I-5 NCC Project* Final EIR/EIS was drafted to avoid the narrow alleged deficiencies found by the Court. Where the Final EIR/EIS relies upon 2050 RTP information, that information has not been challenged and is not part of the current lawsuit.

Preferred Alternative

Following circulation of the Draft EIR/EIS and receipt of comments, the 8+4 Buffer alternative, the smallest of the identified I-5 build alternatives, was refined to reflect associated comments and concerns related to environmental issues, community input, logistical requirements, transportation needs, and project goals and objectives. Specific refinements include:

- Reduction in right-of-way requirements.
- Revisions to lagoon bridges and channel improvements.
- Elimination of direct access ramps (DARs) at Cannon Road and Oceanside Boulevard.
- Refinement of the Manchester Avenue DAR to eliminate a flyover, implement an undercrossing, and reduce the amount of parking at the San Elijo Multi-use Facility.
- Addition of the I-5 North Coast (NC) Bike Trail.
- Addition of California Highway Patrol cross-over/turn facilities.

The refined 8+4 Buffer alternative was determined to be the locally preferred alternative (LPA) in 2011 and was addressed in the August 2012 Supplemental Draft EIR/EIS. After full consideration of the entire administrative record for the proposed project, including the environmental data and all public and agency comments during the Draft EIR/EIS and Supplemental Draft public review process, as well as completion of Clean Water Act Section 404(b)(1) analysis to ensure that the 8+4 Buffer alternative is in fact the Least Environmentally Damaging Practicable Alternative (LEDPA, as required under federal guidelines), Caltrans and FHWA identified the refined 8+4 Buffer alternative as the Preferred Alternative. The Preferred Alternative would include construction of four high-occupancy vehicle (HOV)/Managed Lanes, two in each direction, and would separate HOV/Managed Lanes from general purpose lanes with a variable width buffer instead of a barrier. As part of the overall North Coast Corridor transportation solution, the Preferred Alternative prioritizes the movement of people over vehicles, while minimizing community and environmental effects and still meeting the stated transportation needs and other identified project objectives. The Preferred Alternative fulfills the project's purpose and need, would have the least potential for impacts to listed/sensitive biological resources as well as the least potential for land use impacts, and is supported by the resource agencies. The identification of the Preferred Alternative reflects the consideration of all substantial, reasonably foreseeable, adverse impacts that remain after incorporation of all reasonable mitigation measures.

Project Benefits

From the above discussion and the analysis provided in the Final EIR/EIS, implementation of the *I-5 NCC Project* Preferred Alternative would result in substantial benefits to users of the facility and regional residents. Improvements would:

- Maintain or improve the existing and future traffic operations in the I-5 North Coast Corridor.

- Facilitate the safe and efficient regional movement of people and goods within the I-5 North Coast Corridor and beyond, with associated economic benefits.

- Maintain or improve travel times within the I-5 North Coast Corridor.

- Provide a facility that is compatible with future Bus Rapid Transit (BRT) and other modal options.

- Provide project-level consistency with adopted RTPs, as appropriate, where feasible and in compliance with federal and State regulations.

- Maintain the I-5 North Coast Corridor as an effective link in the national Strategic Highway Network.

- Protect and/or enhance the human and natural environment along the I-5 corridor.

- Implement facilities such as HOV/Managed Lanes, DARs, and pedestrian/bicycle facilities to provide long-term flexibility to accommodate increased transit and non-motorized transportation demand, as well as opportunities to interface with future expansions of regional/local transit and non-motorized transportation systems.

- Provide an extensive system of local community enhancements, such as pedestrian and bicycle trails (including segments of the NC Bike Trail, several local connecting bike trails, and connections/access routes to transit centers and community destinations), new or enhanced east-west freeway connection facilities (i.e., pedestrian and/or bicycle overpass/underpass structures), park and ride enhancements, community gardens and parks, streetscape enhancements, scenic overlooks, interpretive facilities/trailheads, and native habitat preservation.

- Avoid, minimize and/or mitigate impacts to biological resources through efforts including extensive native habitat preservation, removal of exotic/invasive species, protection/enhancement of wildlife movement corridors, and native habitat restoration/enhancement. The latter effort would be conducted on a regional basis through the Resource Enhancement and Mitigation Program (REMP), which entails a regional strategy to address corridor-wide mitigation for the *I-5 NCC Project*, the proposed I-5 / SR-78 Interchange Project, and the Los Angeles to San Diego (LOSSAN) double-tracking rail improvement projects, as well as other facilities such as trails and train stations. The regional approach to mitigation under the REMP would result in greater benefits to coastal resources throughout the corridor than if only ratio-based, project-level and site-specific compensatory mitigation were employed.

- Implement a number of enhancements to coastal lagoons in addition to the regional mitigation described above under the REMP. Specifically, these proposed enhancements are based on associated bridge optimization, hydrologic/hydraulic, and sediment transport studies conducted for the *I-5 NCC Project*, and would provide benefits such as improved corridor-wide lagoon system function and service (e.g., improved tidal exchange, or mixing); enhanced wetland, aquatic and upland habitats; improved water quality; increased flood control; enhanced groundwater recharge potential; and expanded recreational opportunities.

- Construct an extensive system of soundwalls along the *I-5 NCC Project* corridor, as identified in *Section 3.15, Noise*, of the Final EIR/EIS. These soundwalls would be further evaluated for "feasibility" and "reasonableness" to construct as part of the Noise Abatement Decision Report (NADR) that will be completed if the project is approved. Based on the evaluation of 582 noise receptors representing a total of approximately 2,200 units divided into 22 segments along the 27-mile *I-5 NCC Project* corridor, project implementation would result in noise abatement (or impacts that would not be significant under CEQA) for 97 percent of the receptors in the *I-5 NCC Project* corridor, including numerous residential properties, park and recreational sites, care facilities, and other noise-sensitive areas.

- Reduce air quality and related pollutant emissions due to lower travel times, reductions in traffic congestion, and the smoothing of traffic flow along the I-5 corridor. Specific benefits would include the following: (1) reductions in overall air quality emissions compared to existing conditions; (2) reductions in buildout operational emissions of carbon dioxide (a principal greenhouse gas) in the San Diego region by hundreds of tons per day compared to the No Build alternative; and (3) a reduction of approximately 49 percent in Year 2030 mobile source air toxics (MSAT) emissions over base year (2006) conditions.

- Implement water quality "treatment" best management practices (BMPs) that would provide substantially more "treatment" of runoff from paved areas than existing conditions. Implementation of the Preferred Alternative, for example, would result in a minimum total of 112 percent of equivalent new impervious areas being "treated," compared to 7 percent of existing impervious areas currently being "treated."

Conclusion

The benefits provided by the Preferred Alternative, as discussed above, outweigh the potential unavoidable adverse environmental effects. Accordingly, despite the identification of potentially significant and unmitigable environmental effects, the *I-5 NCC Project* would provide substantial and overriding logistic, economic, environmental, and strategic benefits on a local, regional, and national scale.

Caltrans declares that it has adopted all feasible mitigation measures with respect to the above-remaining unavoidable significant effects, and finds that they are acceptable due to each of the specific economic, legal, social, technological, or other overriding benefits that would result from approval and implementation of the project, as listed above. All of these benefits are based on the facts set forth in the CEQA Findings, the Final EIR/EIS, and the project record of proceedings. Each of these benefits is a separate and independent basis that justifies approval of the project, so that if a court were to set aside the determination that any particular benefit would occur, Caltrans finds that it would stand by its determination that the remaining benefit(s) are sufficient to warrant project approval.