LINDEN AVENUE AND CASITAS PASS ROAD INTERCHANGES PROJECT

Natural Environment Study Report

Route 101, Linden Avenue and Casitas Pass Interchanges,

In the City of Carpinteria, Santa Barbara County

D5-SB-101-PM 2.2/3.4

EA 4482U0

December 2008

Revised: June 1, 2010

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Chuck Cesena, Central Coast Environmental Management, 50 Higuera St. San Luis Obispo, Ca 93401; 805-549-3622 Voice, or use the California Relay Service TTY number, 1-800-735-2929.

Natural Environment Study Report

Route 101, Linden Avenue and Casitas Pass Interchanges,

In the City of Carpinteria, Santa Barbara County

05-SB-101-PM 2.2/3.4

4482U0

December 2008

Revised: June 1, 2010

LINDEN AVENUE AND CASITAS PASS ROAD INTERCHANGES PROJECT

Prepared By: Lisa Schicker Date: June 1, 2010

Lisa Schicker
Associate Environmental Planners - Natural Sciences
Central Coast Environmental Management
District 5-Central Region

Approved By: chuck cesena Date: 6/1/10

Chuck Cesena, Senior Environmental Planner
Central Coast Environmental Management
District 5-Central Region

Summary

The proposed project entails operational improvements on Route 101 in Santa Barbara County, located within the City of Carpinteria, from 0.2 miles south of the Carpinteria Creek bridges to 0.4 miles north of Linden Avenue. The proposed project includes interchange reconstruction, new bridge and soundwall construction and frontage road extensions. The purpose of this project is to reduce traffic congestion and improve circulation along Route 101 and adjacent local streets. The project is also needed to address operational safety issues within the project limits.

This report, called the NES or Natural Environment Study, summarizes existing biological conditions and the resulting biological impacts. It also describes regulatory compliance, and biological avoidance, minimization and mitigation and monitoring requirements.

The total disturbed soil area (DSA) for the project will be approximately 37 acres. The DSA was calculated by accounting for all areas of all cut and fill, in addition to areas needed for various construction activities. Alternative 1 yielded the largest net increase of 5.58 acres of impervious surface area. All areas that are not paved will be revegetated as part of the project.

Impacts to natural habitat areas are both temporary and permanent. Impacts to the riparian vegetation (trees and shrubs) along Carpinteria Creek (for all four build alternatives) include all areas with riparian shrubs and trees (that are less than 6" dbh) - approximately 0.47 acres of temporary and 0.29 acres of permanent impact are anticipated. Approximately twenty-one individual riparian trees and eight native coast live oak trees (greater that 6" dbh) will also be removed.

Impacts to Coastal Commission wetlands are found in two ditches leading to Franklin Creek and include approximately .05 acre of temporary and .02 acres of permanent impact for all four alternatives. Final impact totals will be rechecked and adjusted during the permitting and final design stage. Cumulative impacts occur at this location due to the Santa Barbara South 101 HOV Project (a project to widen the existing 4 lanes to six lanes, adding an HOV lane in each direction, from Post Mile 2 – 12. 3).

Invasive plant species are located throughout the project area and will be removed.

Recommended replacement ratios for all vegetation that is removed are as follows:

Ornamental landscaped areas in the DSA – replaced at 1:1, using native plants (acreage)
Native trees > 6" dbh - oaks – replaced at 10:1
Native trees > 6" dbh - willows, cottonwoods, sycamores, etc., replaced at 3:1

Native riparian trees/shrubs/vegetation areas, 6" dbh - replaced at 3:1 (acreage)
Wetlands (ACOE and CC), Waters of the US and wetland vegetated areas - permanent impacts replaced at 3:1 and temporary impacts replaced at 1:1(acreage)

Special status species with the potential to be impacted by this project include nesting migratory birds and the federally endangered steelhead trout (*Oncorhynchus mykiss*, Southern ESU) and the federally endangered tidewater goby (*Eucyclogobius newberryi*).

Migratory birds are protected under the Federal Migratory Bird Act and special provisions (SSP's) will be included on the project plans to provide for their protection and for compliance with this law. Non-native eucalyptus trees adjacent to Carpinteria Creek will be removed; one of these trees is a known nesting site for the red-tailed hawk *(Buteo jamaicensis),* a protected migratory bird species.

Steelhead trout are known to occur within Carpinteria Creek, a federally designated Critical Habitat Area. Following the selection of a preferred alternative, Caltrans will initiate Formal Section 7 consultation under the Endangered Species Act with the National Oceanic and Atmospheric Administration Fisheries (NOAAF), including discussion of "potential incidental take" of steelhead in Carpinteria Creek. It is anticipated that project will have a net beneficial impact to the species, due to the removal of an existing at-grade stream crossing, which is considered a migration impediment.

Tidewater gobies are known to occur within Carpinteria Creek and at the mouth of Franklin Creek. Following the selection of a preferred alternative, Caltrans will initiate Formal Section 7 consultation under the Endangered Species Act with the U.S. Fish and Wildlife Service (USFWS), including a discussion of "potential incidental take" of tidewater gobies in Carpinteria Creek. Tidewater gobies in the lower reaches of Franklin Creek will not be impacted by this project.

A streambed alternation agreement will be required from the California Department of Fish and Game, and permits will be required from the U.S. Army Corps of Engineers and Regional Water Quality Control Board. Creation of an additional 1,560 square feet of "Other Waters of the United States" will be achieved with the removal of an existing low-flow concrete bike/pedestrian path on Carpinteria Creek. The project is located within the coastal zone and will require a Coastal Development Permit from the City of Carpinteria in Santa Barbara County prior to construction.

Note to Reader: Appendix E and F summarize tree removals and all biological avoidance, minimization, compensatory mitigation and monitoring requirements for this project – this appendix will be revised as needed as the project moves through design and permitting stages.

Table of Contents

1. Introduction 1

1.1. Project History 2

1.2. Project Description 2
1.2.1. Alternatives 1 and 4 5
1.2.2. Alternatives 2 and 3 5
1.2.3. No-Build Alternative 5
1.2.4. Construction Work Schedule 5
1.2.5. Types of Equipment 6
1.2.6. Traffic Staging 6
1.2.7. Construction Staging and Storage Areas 6
1.2.8. ESA (Environmentally Sensitive Area) Fencing 6
1.2.9. Project Costs and Programming 7

2. Study Methods 8

2.1. Studies Required and Regulatory Requirements 8

2.2. Personnel and Survey Dates 8

2.3. Agency Coordination and Professional Contacts 9

2.4. Limitations That May Influence Results 10

3. Environmental Setting 11

3.1. Description of the Existing Physical Conditions 11
3.1.1. Watershed Conditions 11

3.2. Description of the Existing Biological Conditions 13
3.2.1. Biological Study Area (BSA) and Area of Direct Impact (ADI) 13

3.3. Regional Context: Special Status Biological Resources 17

4. Biological Resources, Discussion of Avoidance and Minimization, Survey Results, Impacts and Mitigation 20

4.1. Tree Removals throughout the Project Area of Direct Impact (ADI) 20

4.2. Natural Communities of Special Concern in the Project Area of Direct Impact (ADI) 21
4.2.1. Riparian Habitat Natural Community 21
4.2.2. Wetland Natural Communities 23
4.2.3. Jurisdictional "Other Waters" of the U.S. 26
4.2.4. Oak Woodland Natural Communities 30

4.3. Special Status Species Potentially in the Project BSA and ADI 32

4.4. Special Status Plant Species Potentially in the Project BSA/ADI 33
4.4.1. Salt marsh Bird's Beak 33
4.4.2. Gambel's Watercress 33

4.4.3. Coulter's Saltbush 34
4.4.4. Nuttall's Scrub oak....34
4.4.5. Coulter's Goldfields....34

4.5. Special Status Animal Species Potentially in the Project BSA/ADI....35
4.5.1. Steelhead Trout, Southern California Evolutionary Significant Unit and Critical Habitat.....35
4.5.2. Tidewater Goby....37
4.5.3. California red-legged frog (CRLF) 41
4.5.4. Southwestern willow flycatcher....41
4.5.5. Least Bell's vireo 42
4.5.6. Light-footed Clapper Rail 43

4.6. Migratory Birds and Wildlife in BSA/ADI 43
4.6.1. Impacts to Migratory Birds 44
4.6.2. Impacts to Wildlife....45
4.6.3. Compensatory Mitigation for Wildlife....46
4.6.4. Cumulative Effects for Wildlife....46

4.7. Invasive Species in ADI....46
4.7.1. Survey Results for Invasive Species 46
4.7.2. Avoidance and Minimization Efforts for Invasive Species 47
4.7.3. Project Impacts for Invasive Species 47
4.7.4. Compensatory Mitigation for Invasive Species 47
4.7.5. Cumulative Impacts for Invasive Species 47
4.7.6. Positive and Beneficial Biological Impacts of Removing Invasive Species....47

5. Laws, Regulatory Requirements, Permits and Technical Studies for Special Laws or Conditions .49

5.1. Clean Water Act (Sections 404 and 401), ACOE and RWQCB 49

5.2. Streambed Alteration Agreements and CDFG....50

5.3. Federal Endangered Species Act Consultations - USFWS and NOAFF 50

5.4. Federal Migratory Bird Act 51

5.5. California Endangered Species Act Consultation and CDFG....51

5.6. Coastal Development Permit and Local Coastal Plan – City of Carpinteria and the CA Coastal Commission....51

5.7. Carpinteria Creeks Preservation Program (CCP) 52

6. References....55

Appendix A : Aerial Maps: Biological Study Area and Area of Direct Impact....61

Appendix B : USFWS Endangered, Threatened, and Proposed Species List....64

Appendix C : CDFG California Natural Diversity Database (CNDDB) and CNPS Species Lists.69

Appendix D : Wetlands and "Other Waters" 73

Appendix E : Native Tree Removal Map 77

Appendix F :Summary of Avoidance, Minimization, Compensatory Mitigation, Monitoring and Reporting Measures 85

Appendix G Project Plans – Alternatives 1- 4 98

List of Figures

Figure 1: Project limits 1
Figure 2: Biological Study Area 14

List of Tables

Table 1: Comparison Of Proposed "Build" Alternatives 4
Table 2: Regional Special Status Species Table 17
Table 3: Proposed Tree Removals (greater that 6" dbh) 20
Table 4 Summary of Impacts to Wetlands (CCC) and ACOE "Other Waters" of the U.S. 30
Table 5: Locations of all Native Oak Tree Removals 31
Table 6: Project Study Area - Special Status Species 32

List of Abbreviated Terms

AADT	Average Annual Daily Traffic
ACOE, USACE	U.S. Army Corps of Engineers
ADI	Area of Direct Impact
BSA	Biologic Study Area
Caltrans	California Department of Transportation
CPP	Creeks Preservation Plan (City of Carpinteria)
CDFG	California Department of Fish and Game
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plants Society
Dbh	Diameter at breast height (at 4 ft.)
DSA	Disturbed Soil Area
ESA	Environmentally Sensitive Area
ESU	Environmentally Significant Unit
ESHA	Environmentally Sensitive Habitat Area
FHWA	Federal Highway Administration
Ft	Foot/feet
In	Inches
LCP	Local Coastal Plan
M	Meter(s)
Mi	Mile(s)
NES	Natural Environment Study
NOAAF	National Oceanic and Atmospheric Administration Fisheries
NRCS	Natural Resources Conservation Service
NSSP	Non-standard Special Provision
PDT	Project Development Team
PM	Post mile
PSA	Project Study Area
PSE	Plans, Specifications and Estimates
SR	State Route
RWQCB	Regional Water Quality Control Board
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey

1. Introduction

The California Department of Transportation (Caltrans), the Santa Barbara County Association of Governments, and the City of Carpinteria propose to make operational improvements to Route 101 between Post Miles 2.2/3.4, located in the City of Carpinteria in Santa Barbara County (refer to Figure 1). The purpose of this project is to reduce traffic congestion, improve circulation and address operational safety issues along Route 101 and adjacent local streets.

The proposed action includes reconstructing the Linden Avenue and Casitas Pass Road interchanges, reconfiguring on- and off-ramps, replacing Route 101 bridges over Carpinteria Creek, extending Via Real frontage road from Bailard Avenue through to Casitas Pass Road, adding a new bridge over Carpinteria Creek at Via Real, and reconstructing bike paths. The proposed action will take place on Route 101 and adjacent streets from north of Franklin Creek to just south of Carpinteria Creek. The project area is approximately 1.2 miles in length and located within the City of Carpinteria in Santa Barbara County.

Figure 1: Project limits

1.1. Project History

In the past ten years there has been an increase in traffic on this section of Route 101 and the adjacent local streets. An increase in residential populations, commuter trips, motorists passing through the city, and tourists visiting local attractions account for this growth. These conditions have been aggravated by non-standard highway designs and the lack of a contiguous frontage road as an alternative route to Route 101. According to 2003 Annual Average Daily Traffic on the California State Highway System, (Department of Transportation, Division of Traffic, 2005), the volume of traffic on this portion of Highway 101 is about 77,000 AADT (Annual Average Daily Traffic). The result has been heavy congestion during peak hour traffic periods and higher volumes during the summer and holiday weekends.

1.2. Project Description

The project is located in Santa Barbara County and can be found on the U.S. Geologic Survey (USGS) 7.5' Carpinteria Quadrangle T, 4N R, 25W (see Figure 1). The proposed operational improvements would occur on Route 101 in the City of Carpinteria from 0.2 miles south of the Carpinteria Creek bridges to 0.4 miles north of Linden Avenue.

Four "build" alternatives and a "no-build" alternative are currently proposed. A preferred alternative has not been selected and all five alternatives are currently under consideration (see Appendix A for project maps). Alternatives 1 and 4 are similar, and Alternatives 2 and 3 are similar.

All proposed, "build" project alternatives address the need for operational improvements and include the reconstruction of two interchanges: Casitas Pass Road Overcrossing and Linden Avenue Overcrossing. Additionally, all " build" project alternatives replace the Highway 101 Carpinteria Creek bridges with higher profile bridges, add a new northbound off ramp, and build the Via Real frontage road from the mobile home park to the north, across Carpinteria Creek, by way of a new 2-lane bridge, to Casitas Pass Road. All alternatives share the same alignment southeast of Vallecito Road. Table 1 compares the four alternatives.

The total maximum disturbed soil area (DSA) will be approximately 37 acres. DSA was calculated by accounting for areas of all cut and fill, including all areas used for construction activities.

Alternative 1 = 15.02 hectares (37.11 acres)

Alternative 2 = 14.58 ha (36.04 ac.)

Alternative 3 = 14.55 ha (35.94 ac.)

Alternative 4 = 15.02 ha (37.11 ac.)

Alternative 1 yielded the largest net increase of impervious surface area: 5.58 acres. All build alternatives have sound walls built in order to mitigate for noise impacts along Route 101. One of the sound walls (B9) to be installed will impact a roadside wetland and drainage. Approximately 60% this drainage area (.3 acres) will be permanently filled and covered.

Table 1: Comparison Of Proposed "Build" Alternatives

DESCRIPTION	ALT. 1	ALT. 2	ALT. 3	ALT. 4
Replace existing 2-lane Casitas Pass Road over-crossing with 5-lane over-crossing, including bike lanes and 5-foot sidewalks	X	X	X	X
Upgrade southbound on and off-ramps at Casitas Pass Road OC	X	X	X	X
Construct new northbound on and off-ramps at Via Real south of Casitas Pass Road OC	X	X	X	X
Extend Via Real as a frontage road between mobile home park across Carpinteria Creek to Linden Avenue	X	X	X	X
Replace and widen northbound and southbound Route 101 bridges over Carpinteria Creek	X	X	X	X
Construct new 2-lane bridge over Carpinteria Creek on Via Real	X	X	X	X
Remove northbound cloverleaf on-ramp at Linden Ave	X	X	X	X
Remove northbound on ramp at Vallecito Avenue	X	X	X	X
Install approx. 13+ sound walls along Route 101, various locations (Noise mitigation)	X	X	X	X
Replace existing 2-lane Linden Avenue over-crossing with 4-lane over-crossing including bike lanes and 5-foot sidewalks		X	X	
Replace existing 2-lane Linden Avenue over-crossing with 5-lane over-crossing including bike lanes and 5-foot sidewalks	X			X
Replace northbound on-ramp and southbound off-ramp at Linden Avenue	X	X	X	X
Replace and widen northbound Franklin Creek Bridge	X			X
Signalize intersections at: Casitas Pass southbound on-ramp and off-ramp Casitas Pass northbound on and off-ramps at Via Real Casitas Pass Road/Via Real Linden Avenue/Via Real Linden Avenue northbound on-ramp Linden Avenue southbound off-ramp	X	X	X	X
Repave and raise the profile of Route 101 from the south project limit to just north of Casitas Pass Road over-crossing	X	X	X	X
Median and Mitigation planting: *oleander*, *photinia, raphiolepis, plumbago, palms and native riparian and wetland planting, oaks, invasive weed and soil removal (bio/aesthetic mitigation)*	X	X	X	X

1.2.1. Alternatives 1 and 4

The major feature of Alternatives 1 and 4 is that they extend the Highway 101 northbound on-ramp from Linden Avenue across Franklin Creek, and either widens and/or replaces Franklin Creek Bridge. The proposed Franklin Creek north bound bridge would be the same length as the existing original bridge that was built in the late sixties by NRCS (Natural Resource Conservation Service). The original Route101 Bridge had been built to span the unlined natural Franklin Creek channel that existed prior to the channelized creek.

The new on-ramp would not loop under the Linden Avenue structure as does the existing on-ramp, and as it would in Alternatives 2 and 3. The difference between Alternative 1 and 4 is that Alternative 1 affects slightly more of the Verizon Property (private property) located just east of the Via Real and Linden Avenue Intersection.

1.2.2. Alternatives 2 and 3

Alternates 2 and 3 do not replace the northbound Franklin Creek Bridge. Both Alternatives 2 and 3 would mimic the existing loop northbound on-ramp. Alternative 2 would have a standard intersection with Via Real slightly off-set from the intersection of Ogan Road, while Alternative 3 would create a roundabout intersection with Via Real, Ogan Road and the northbound (loop) on-ramp meeting about 400-feet east of the junction of Via Real and Linden Avenue.

1.2.3. No-Build Alternative

The no-build alternative would not upgrade the Linden Avenue and Casitas Pass Road Interchanges or reconstruct either the Carpinteria Creek or Franklin Creek Bridges, and would not connect Via Real between Bailard Avenue and Linden Avenue. The grade of the highway would also not be affected. Traffic on Route 101 and on local streets would continue to become more congested. Under the No-Build alternative there would be no changes to the existing project area, and existing operational safety issues within the project limits would not be addressed. This alternative would not satisfy the purpose and need for the proposed project.

1.2.4. Construction Work Schedule

The proposed project, including work in and around Carpinteria and Franklin Creeks would take three construction seasons, and is currently scheduled to begin in 2011. Unless directed otherwise by the resource agencies, the construction window for work in and around the creeks will be from May 1st through October 31st, annually, in order to avoid impacting migrating steelhead trout and the peak breeding season for tidewater gobies. Removal of riparian vegetation and large trees (Diameter Breast Height > 6 inches dbh (25.4 cm) would occur from September 1 - February 15, which is outside of the nesting season of migratory birds and raptors. Removal of riparian vegetation and

large trees will occur outside of the nesting season in order to avoid impacts to migratory birds and raptors.

Work will not be performed in a live stream channel; areas will be carefully dewatered. Details can be found in the Avoidance, Mitigation and Monitoring plan found in Appendix E. Access to Franklin Creek will be from the stream banks and edge of highway. Access to Carpinteria Creek will be from the existing bike path located at the Via Real frontage road and the top of the creek banks. The existing bike path creek crossing will be removed following the completion of new frontage road, bridge and bike path construction. The existing bike path crossing over Carpinteria Creek will be relocated across the new Via Real extension over Carpinteria Creek and will conform to the existing path on the north bank. (See project maps in Appendices).

Construction is estimated at five years, but this schedule will also depend on local conditions and weather conditions (Caltrans Structures Engineering 2008).

1.2.5. Types of Equipment

Trucks, cranes, bulldozers, backhoes, compactors, a pile-driving rig, drill rig, clamshells, excavators, hoe rams, jackhammers, compressors, man lifts, scrapers, pavers, and any other equipment that becomes necessary in the course of construction will be used.

1.2.6. Traffic Staging

During construction, Route 101 will be reduced to one lane of one-way traffic (with a signaling system) through the construction site with some temporary closures of both lanes. Highway traffic closures and delays are discussed in the Traffic Management Plan section of the environmental document.

1.2.7. Construction Staging and Storage Areas

Potential staging and storage areas were identified in August 2008 (See maps in Appendix A for proposed locations.

1.2.8. ESA (Environmentally Sensitive Area) Fencing

ESA fencing will be installed throughout areas of the project to limit construction activities and protect habitats of concern.

Special Provisions for the installation of ESA fencing and silt fencing shall be included in the Construction Contract for this project and also identified on the project plans. Although all ESA's will be delineated on the plans, ESA areas must also be delineated in the field and must be approved by the project environmental division prior to beginning any construction activities including vehicle storage. Resident Engineer should contact Lisa Schicker, Biologist at 805-549-3628, construction Liaison George Sistek (805-549-3487) or Chuck Cesena, Supervisor (549-3622).

1.2.9. Project Costs and Programming

The estimated construction cost (July 2008) for the viable project alternatives range from $59.0 million to $61.5 million (including roadway, structures, mobilization, supplemental work, and contingencies). Right of way costs range from $10.5 million to $13.6 million (not escalated) as of December 2008.

The project is funded through Program 075.600 (HE11 RIP) in the 2011/2012 State Transportation Improvement Program (STIP). This project has been assigned Project Development Category 3 because it involves a previously constructed access controlled route requiring a revised freeway agreement but not a route adoption (Bhana, Project Design Engineer, personal communication 7-28-08)

2. Study Methods

The studies conducted for this project included general biological field surveys, botanical surveys for sensitive plant species, wetland delineations, tree removal surveys, USFWS protocol level surveys for California red-legged frogs (*Rana aurora draytonii*), and habitat assessments for tidewater goby (*Eucyclogobius newberryi*), steelhead trout (*Oncorhynchus mykiss*), southwestern willow flycatcher (*Empidonax traiillii extimus*), least Bell's vireo (*Vireo bellii pusillus*), and the light-footed clapper rail (*Rallus longirostris levipes*) and Gambel's watercress (*Rorippa gambellii*).

2.1. Studies Required and Regulatory Requirements

The studies required for this project were determined by obtaining a special status species list (including endangered, threatened, and proposed species) from the U.S. Fish and Wildlife Service (USFWS) (Appendix B), conducting record searches from both the California Natural Diversity Database (CNDDB) and California Native Plants Inventory (see Table 1 and Appendix C), research from past projects in the surrounding area, and research of the project area.

Required studies included conducting botanical surveys for potential sensitive plants during the appropriate times of the year (refer to section 2.2, Personnel and Survey Dates). Surveys for the California red-legged frog were conducted according to the USFWS 1997 and the 2005 protocol for field surveys. Wetland delineations were conducted near Carpinteria Creek and Franklin Creek in order to identify wetland resources and determine potential impacts. Wetland determinations were also conducted for the drainage ditch at Soundwall Location B9.

Regulatory requirements (such as ACOE, USFWS Section 7, DFG Streambed, etc.) are discussed in detail in Chapter 5.

2.2. Personnel and Survey Dates

Botanical surveys for sensitive plants were conducted by Caltrans Biologist Mitch Dallas on 5/1/00, 7/12/00, 8/8/00, 6/6/01, 6/14/01, 3/1/02, 4/25/02, 4/23/07, and 5/4/07 and by Lisa Schicker (at Soundwall Location B9 on May 20, and August 4, 2008). No sensitive plant species were found to occur within or adjacent to the project limits. USFWS protocol level surveys for the California red-legged frog were conducted at Carpinteria Creek on 10/30/02, 3/1/02, 11/1/02, 4/23/07, 5/4/07, 5/29/07, 7/25/07, and 11/6/07 by Caltrans Biologist Mitch Dallas. Wetland delineations were conducted by Caltrans Biologist Mitch Dallas on 3/1/02, 4/23/07 and 5/407, Lisa Schicker on August 4, 2008 (for Soundwall Location B9) and by Lisa Schicker, Morgan Robertson and Karen Bewley on March 4, 2010 (for wetland at Linden overpass and NB 101), according to the Interim Regional

Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region 2006 and the Field Guide for Wetland Delineation 1987 Corps of Engineers Manual.

2.3. Agency Coordination and Professional Contacts

Meetings with the appropriate resource agencies took place on various dates as detailed below.

A meeting with Bridget Fahey and Katie Drexhage of the USFWS took place at the project location on 11/21/02. During the meeting, it was concluded that formal consultation under Section 7 of the Endangered Species Act for potential incidental take of tidewater gobies would be required with the USFWS following the selection of a preferred alternative. Minimization measures will be incorporated into the project in order to reduce the potential take of the tidewater goby.

The meeting also discussed potential for project impacts to other special status species – it was discussed and determined that the project would have no affect on the Western snowy plover, the southwestern willow flycatcher, the least bell's vireo, the light-footed clapper rail, the California red-legged frog, or the Salt marsh bird's-beak or Gambel's watercress. The not likely to adversely affect determination was based on habitat assessments for each species.

A meeting with Stan Glowacki of the National Oceanic and Atmospheric Administration Fisheries (NOAAF) took place on 11/26/02 at the project location. The project build alternatives as proposed would require formal consultation under Section 7 of the Endangered Species Act with the NOAAF for potential incidental take of southern California steelhead trout, again after a preferred alternative was selected. Work for this project in and adjacent to the creek will have a window of work from May 1st through October 31st in order to avoid potential affects to migrating steelhead trout. NOAAF agreed that the overall project would be a benefit to steelhead trout.

A meeting with Trudy Ingram of the California Department of Fish and Game (CDFG) took place on 11/20/02 at the project location. It was concluded that the project's riparian vegetation removal would need to be conducted from September 1 – February 15 in order to avoid potential affects to nesting migratory birds. Replanting for riparian vegetation impacts would be conducted at a 3:1 ratio on site. The CDFG also agreed that the overall project would benefit southern California steelhead trout and that a 1601 streambed alternation agreement would be required for work in and adjacent Carpinteria and Franklin Creeks.

A meeting with Susan DeSaddi of the U.S. Army Corps of Engineers (ACOE) took place on 12/11/02 at the project location. The Section 404 Clean Water Act permitting process was discussed and it was concluded at that time that the project would most likely fit under the Nationwide Permit program and that additional design detail would be needed to facilitate the final permit.

A meeting with Lisa Schicker and Lara Bertaina of Caltrans, with Theresa Stevens of the Army Corps of Engineers (ACOE) took place on 8/27/08 at the project location to discuss the project and recent changes to the project. Also, changes to wetlands policies including Jurisdictional Wetland Determinations and permitting requirements due to the Rapanos legal decisions were discussed. Ms. Stevens was unable to recommend a permit type and she recommended that Caltrans request a pre-application permit meeting with ACOE, once the preferred alternative has been selected. Further discussions between Caltrans' Environmental permit liaison Coordinator Karen Bewley and Ms. Stevens in 2010 have been ongoing as the project proceeds – topics discussed include USACE jurisdiction, permits and wetland issues. Bank stabilization features below the ordinary high water mark of Carpinteria Creek may require the need for an Individual Permit, as detailed in the 2007 Regional Conditions for the Los Angeles District of the ACOE.

Contact was made with Dave Compton and Karen Bridgers of the Santa Barbara Chapter of the Audubon Society in November of 2002 in order to confirm the habitat assessment that was made for the Western snowy plover, the southwestern willow flycatcher, the least bell's vireo, and the light-footed clapper rail. Both Mr. Compton and Ms. Bridgers, local birding experts, confirmed that the project area or areas adjacent did not represent nesting habitat for these species. There are no known records of these species nesting along Carpinteria Creek.

A meeting with Lisa Schicker and Bill Arkfeld of Caltrans and Betty Songer and Bob Hansen of the Carpinteria Creek Watershed Coalition took place at Franklin Creek on August 4, 2008 to discuss potential impacts and mitigation ideas.

2.4. Limitations That May Influence Results

One limitation or constraint that occurred during field studies was the timing of one of the 2002 California red-legged frog (CRLF) USFWS 1997 protocol level survey. The survey took place on 11/1/02 with approval from Bridget Fahey of the USFWS. The USFWS protocol for surveys of the California red-legged frog states that surveys are to be conducted between May 1st and November 1st. With the USFWS approval, the second survey was conducted on November 1st, prior to the first rains of the wet season. The timing of the last California red-legged frog survey should have no bearing on the negative survey results given that the surveys were conducted prior to the first rains of the wet season. Five additional CRLF surveys were conducted in 2007 according to the current 2005 USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF. All other field surveys noted were conducted at the appropriate time of the year. Surveys for the additional roadside ditch adjacent to soundwall location B9 were limited to day surveys in August and September – all surveys were negative.

3. Environmental Setting

The regional setting for the project consists of Route 101 as it travels through the built urban environment (City of Carpinteria). The physical conditions within and adjacent to the project limits consist of the flat topography of a coastal terrace that is dissected by the depositional zone of both Carpinteria Creek and the channelized Franklin Creek.

Other areas adjacent to the project include residential and business areas, intensive agriculture operations, a drainage ditch and a concrete channelized section of Franklin Creek, Carpinteria Creek with a concrete at-grade stream crossing and a public bicycle path, a band of riparian vegetation along Carpinteria Creek, an isolated grove of Coast live oaks next to a small open field that is adjacent to Carpinteria Creek and the Via Real bike path, and a grove of eucalyptus next to Carpinteria Creek that are historically used by nesting raptors.

3.1. Description of the Existing Physical Conditions

The project area is located along a portion of a coastal terrace at an elevation of 50 ft or less that is bordered to the northeast by the Santa Ynez Mountains. The project area is mostly surrounded by residential and commercial development.

The coastal terrace within the project limits is dissected by the depositional zone of both Carpinteria and Franklin Creeks. Franklin and Carpinteria Creeks flow southwest through the project area to the Pacific Ocean. Within and adjacent to the project limits, the two creeks are characterized as having passed through the headwaters, the transfer zone, an area of intensive agriculture within the depositional zone, and then past the project area into an urban setting before reaching the Pacific Ocean. (Caltrans, 2008)

Franklin Creek has a total watershed area of 2,732 acres – the channelized section of the creek affected by project Alternatives 1 and 4 is approximately 1700 linear feet upstream from the Southern Pacific Railroad bridge and where the channelization of Franklin Creek ends. Carpinteria Creek has a total watershed area of 9,680 acres with a maximum flow of 8900 cubic feet/second during a 100-year storm event (SB County Flood Control District 2002/2003). Within the project limits, Carpinteria Creek has a low flow bike/pedestrian path that crosses the creek and then runs parallel to the north bank in a down stream direction on top of a retaining wall that runs the length of the existing Route 101 bridges.

3.1.1. Watershed Conditions

Franklin Creek. Because of severe flooding in the 1960s, Franklin Creek is concrete lined. The channel under Highway 101 is designed to pass the 100-year flood event. Because the channel is concrete lined, changes in the hydrograph (i.e., storm water discharge rates and volumes) have little effect in the lower half of the watershed. The only possible exception is just downstream of the concrete lining at the Carpinteria Marsh where the channel appears to be scoured. Franklin Creek is known to have elevated nitrate levels, making it less hospitable for wildlife. The concrete lining of the Creek prevents steelhead from migrating up stream. There is evidence that steelhead were historically present in Franklin Creek, but no steelhead are currently present. During flood events, mapping indicates that floodwaters have flowed down Highway 101 to Franklin Creek. Tidewater gobies are present in Carpinteria Marsh, downstream of Franklin Creek. The "Creeks Preservation Plan" (CPP Plan, 2006.) includes a proposed restoration project that will remove the complete length of concrete lining from the Creek and restore a limited riparian corridor. The CPP Plan is discussed later in this report. The drainage/wetland that is impacted by Soundwall B9 drains very slowly into Franklin Creek on the southbound side of Highway 101.

Carpinteria Creek. Carpinteria has a significant steelhead fishery. Carpinteria Creek is still mostly in its natural condition, except for the following:

Upper Watershed: Debris basins have been installed as a flood control measure in the upper watershed. These debris basins are a barrier to fish passage and prevent a significant amount of sediment from migrating downstream.

Mid Watershed: Most existing farms and urban development in the watershed have significantly encroached on the riparian corridor of the Creek. Riparian areas help moderate changes to the creek channel.

Lower Watershed: The mouth of Carpinteria Creek previously was located in Carpinteria Marsh. The Creek is no longer able to flow to the Marsh due to housing developments.

The proposed project includes the following improvements to Carpinteria Creek:

- A new bridge that will improve the flood capacity of the channel,
- Removal of a bicycle path that encroaches into the low flow channel of the Creek, and
- This has already occurred.

These improvements should enhance the water quality and geomorphological function of Carpinteria Creek.

Major soil types within the study area include Metz loamy sand and two variants of the Goleta Series: Goleta fine sandy loam and Goleta loam. Soils near and adjacent to

Carpinteria Creek are primarily Goleta fine sandy loam. Imported fill soils occur throughout the highway corridor and within the project limits.

3.2. Description of the Existing Biological Conditions

The area of greatest biological concern for the proposed project is in the vicinity of Carpinteria Creek. All build alternatives widen and/or replace the existing Route 101 bridges and construct a new 2-lane Via Real bridge over Carpinteria Creek. Also, Caltrans will build a sound wall and expand an overcrossing that will impact two freshwater wetland drainage ditches that drain to the channelized portion of Franklin Creek at Route 101.

The area of Carpinteria Creek affected by the widening of the Route 101 bridges consists of a disturbed creek condition caused by a concrete low-flow crossing that facilitates a bike and pedestrian path. The area of Carpinteria Creek affected by construction of a new Via Real Bridge has a narrow strip of riparian vegetation, which is bordered by an avocado orchard to the north (Woodland property) and by an open field with scattered trees adjacent to a mobile home park to the south.

The vegetation in the area is characterized as native and non-native landscape plantings, invasive non-native species, riparian vegetation along Carpinteria Creek, and an isolated grove of Coast live oak (*Quercus agrifolia*) near Carpinteria Creek and the Via Real frontage road. Within the project limits an avocado orchard stands on the Woodland property, which is adjacent to the Route 101 northbound lanes between the north bank of Carpinteria Creek and the northeast side of the Casitas Pass Overcrossing. In addition, non-native eucalyptus trees near the creek house a nesting pair of red-tailed hawks.

Franklin Creek has been channelized in a concrete lined ditch upstream, throughout, and downstream of the project area. Franklin Creek has sparse aquatic vegetation within or adjacent to the project limits, but the Caltrans drainage ditches and banks affected by Soundwall B9 (on southbound side) and the City of Carpinteria drainage ditch adjacent to Linden Avenue Overcrossing on the northbound side are both vegetated with both riparian and wetland vegetation, including watercress and juncus, as well as many ornamental shrubs, trees and grasses such as bougainvillea, Mexican palm, nasturtium and a variety of annual grasses.

3.2.1. Biological Study Area (BSA) and Area of Direct Impact (ADI)

The Biological Study Area (BSA) is defined as the area (land and water) that may be directly, indirectly, temporarily or permanently impacted by construction and construction related activities.

Caltrans right-of way, private lands adjacent to the highway and riparian corridors were used as the boundaries for the biological surveys and studies.

It also encompasses the stream reaches of both Carpinteria and Franklin Creeks and the associated riparian zone. Other areas within the BSA include both the east and west sides of Route 101 and the associated existing and proposed highway on and off ramps and interchanges throughout the project limits (Figure 2 and Maps in Appendix A).

Figure 2: Biological Study Area

The **Area of Direct Impact (ADI)** is defined as the area that is either temporarily or permanently, but *directly* impacted by construction and construction related activities (such as drilling, earth excavation, grading, construction, etc. – see Project Maps, Appendix A).

Additional project staging areas are also included in the ADI- these locations were identified and field reviewed for biological impacts in August 2008; other than short-term removal of native and ruderal grasses and invasive plants (areas which will require revegetation as part of the project), additional biological impacts are not anticipated.

Biological resources are present within this area, and include habitat for aquatic special status species. All build alternatives cause similar impacts to the biological resources, except that Alternatives 1 and 4 cause impacts to Franklin Creek, while Alternatives 2 and 3 do not.

3.2.1.1. Dominant Vegetation in the Project ADI

Throughout the ADI, vegetation communities are a mixture of disturbed non-native weeds and grasslands and landscaped areas. Plants include both include native and non-native species such as Coast live oak (*Quercus agrifolia*), cypress trees (*Cupressus sp.*), nightshade (*Solanum americanum*), golden rod (*Solidago californica*), arroyo willows (*Salix lasiolepis*), California blackberry (*Rubus ursinus*), coyote bush (*Baccharis pilularis*), poison oak (*Toxicodendron diversilobum*), bindweed (*Convolvulus sp.*) tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), rip gut brome (*Bromus diandrus*), little seed muhly (*Muhlenbergia microsperma*), ice plant (*Carpobrotus edulis*), Bermuda butter cup (*Oxalis pescapre*), radish *(Raphanus sativus), Oleander sp.*, gum trees (*Eucalyptus sp.*), edible fig trees (*Ficus carica*), and avocado trees *(Persea americana*).

3.2.1.2. Riparian, Wetland, and Aquatic Habitat Areas in the ADI

The riparian vegetation along Carpinteria Creek consists of arroyo willows (*Salix lasiolepis*), California blackberry (*Rubus ursinus*), alder (*Alnus rubra*), western sycamore (*Plantanus racemosa*), blue elderberry (*Sambucus mexicana*), black cottonwood (*Populus balsamifera ssp. trichocarpa*). The majority of the riparian canopy overstory is arroyo willow (*Salix lasiolepis*), alder (*Alnus rubra*), and western sycamore (*Plantanus racemosa*).

The riparian zone of Carpinteria Creek and the isolated stand of coast live oak trees near the Via Real frontage road act as a stopping spot for migratory birds. Within and adjacent to Carpinteria Creek is a migratory corridor for steelhead trout and provides habitat to Pacific tree frogs (*Hyla regilla*) and bullfrogs (*Rana catesbeiana*). Downstream of the project site, near the mouth of Carpinteria Creek, there are known occurrences and suitable breeding habitat for the tidewater goby.

There is a known raptor-nesting site adjacent to Carpinteria Creek – located in *Eucalyptus* grove of tall trees. This nest is used yearly by a red-tailed hawk and is proposed for removal in order to build the new bridge.

Franklin Creek is confined to a concrete channel within and adjacent to the project limits and no riparian vegetation exists. Downstream in Franklin Creek, approximately 1700 linear feet west of Route 101, the channelization ends near the Carpinteria Salt Marsh, where there is known habitat for tidewater goby.

There are two roadside ditches that drain into down drains and into large culverts flowing to the channelized portion of Franklin Creek under Route 101. Franklin Creek is in a degraded condition but contains freshwater wetland vegetation (watercress and sedges), crayfish and mosquito fish. The creek banks are covered with ornamental plants such as ice plant and bougainvillea.

The vegetation along the drainage ditches leading to Franklin Creek includes various escaped ornamental shrubs and trees, including German ivy (*Senecio mikanioides*), giant reed (*Arundo donax*), garden nasturtium (*Tropaeolum majus*), horsetail (*Equisetum sp.*), and duckweed (*Lemnaceae sp.*). Wetland plants including water hemlock (*Cicuta sp.*), broad-leaved cattail (*Typha latifolia*), watercress (*Rorippa sp.*) are found in the ditches,

According to Senate Bill 857, Caltrans projects programmed after January 1, 2006 are required to assess fish passage and remediate fish passage barriers within Caltrans right-of way. The proposed project was programmed prior to January 1, 2006, so compliance with SB 857 is not required. However Caltrans is currently developing the "South 101 HOV Project" (a project to increase capacity by widening the existing 4 lanes to six lanes, adding an HOV lane in each direction from post mile 2 – 12. 3), that will require fish passage be addressed within the portion of Caltrans right-of-way that overlaps Franklin Creek. There is historical evidence that steelhead inhabited Franklin Creek and the current concrete lined condition of Franklin creek is considered a fish passage barrier because the concrete lining does not provide the water depth and resting pools steelhead would need to migrate upstream.

3.2.1.3. Wildlife in the ADI

Common terrestrial animal species within the biological study area include the raccoon (*Procyon lotor*), domestic cat (*Felis domestica*), ground squirrels *(Spermophyllus beechyi.*), feral house cat (*Felis catus*), and the opossum (*Didelphis virginiana*).

Common aquatic species found within the biological study area include tree frogs (*Hyla regilla)*, crayfish (*Procambarus clarkii*) and mosquito fish (*Gambusia affinis.*)

3.2.1.4. Invasive plants in the ADI

Invasive vegetation within the biological study area includes the following species: tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), rip gut brome (*Bromus diandrus*), giant reed (*Arundo donax*), garden nasturtium (*Tropaeolum majus*), ice plant (*Carpobrotus edulis*), German ivy (*Senecio mikanioides*), gum trees (*Eucalyptus sp.*) and edible fig (*Ficus carica*). Other invasive species include the bullfrog (*Rana catesbeiana*), opossum (*Didelphis virginiana*) and the feral house cat (*Felis catus*).

3.3. Regional Context: Special Status Biological Resources

From the CNDDB research of surrounding USGS quads (Carpinteria (142A) 3411945, Little Pine Mountain (167C) 3411956, Hildreth Peak (167D) 3411955, White Ledge Peak (141B) 3411944), the CNPS inventory, USFWS species list and discussion with various wildlife specialists, special status wildlife and plant species were identified as having potential to inhabit the project vicinity and are highlighted in the following table and analyzed further in the following section.

A species request letter was sent to USFWS and a reply was received on October 10, 2002. Due to the long lead time on this project, the list was updated in 2008 by downloading the most recent USFWS listings in Santa Barbara County from the USFWS Ventura website (see Appendix B).

Table 2: Regional Special Status Species Table

Scientific Name	Common Name	Status	General Habitat Description	Habitat Present/ Absent	Rationale
Oncorhynchus mykiss S. Ca. ESU	Steelhead Trout	FE/ SSC	Coastal streams	Present	Known to be present in Carpinteria Creek, Designated Critical Habitat - NOAAF
Gasterosteus aculeatus williamsoni	Unarmored three-spined stickleback	FE	Slow moving waters of streams & rivers	Absent	Not known to occur in Carpinteria or Franklin Creek.
Eucyclogobius newberryi	Tidewater Goby	FE	Coastal Lagoons	Present	Lack of breeding habitat within the project limits. Potential movement corridor on Carpinteria Creek.
Branchinecta longiantenna	Longhorn fairy shrimp	FE	Vernal pools, or other seasonally wet areas	Absent	Lack of habitat.
Branchinecta lynchi	Vernal pool fairy shrimp	FE	Vernal pools, or other seasonally wet areas	Absent	Lack of habitat.
Pelicanus occidentalis	Brown pelican	FE	Nesting on coastal islands	Absent	Lack of nesting habitat.
Gymnogyps californianus	California condor	FE	Nesting at high elevations on cliffs	Absent	Lack of habitat.
Sterna antillarum browni	California least tern	FE	Nesting coastal open sandy areas	Absent	Lack of habitat.
Rallus longirostris levipes	Light-footed Clapper rail	FE/SE	Coastal salt marsh	Present-potential adjacent	Lack of habitat with project footprint.
Charadrius alexandrinus nivosus	Western Snowy Plover	FT/ CH/ SSC	Barren sandy beaches and flats	Absent	Lack of nesting habitat type.

Empidonax traiillii extimus	South-western Willow Flycatcher	FE	Brushy habitats in wet areas	Present	Lack of nesting habitat, potential migrant through area. No known records near Carpinteria Creek
Coccyzus americanus	Yellow-billed cuckoo	FC	Riparian	Present	Potential migrant through area. No known records near Carpinteria Creek
Rana aurora draytonii	California red-legged Frog	FT	Coastal lagoons, marshes, springs, ponds and backwater portions of streams	Present	Negative USFWS Protocol level surveys.
Bufo microscaphus californicus	Arroyo toad	FE	Shallow streams with sandy to gravelly pools	Absent	Lack of habitat.
Ambystoma californiense	California tiger salamander	FE	Vernal & temporary pool/ stock ponds with surrounding uplands and mammal burrows	Absent	Lack of habitat.
Vulpes macrotis mutica	San Joaquin kit fox	FE	Grasslands/oak savanna	Absent	Lack of habitat.
Enhydra lutris nereis	Southern sea otter	FE	Pacific Ocean	Absent	Lack of habitat.
Gambelia silus	Blunt nosed leopard lizard	FE	Sparsely vegetated areas of low relief	Absent	Lack of habitat.
Atriplex Coulteri	Coulter's Saltbush	CNPS 1-B	Coastal scrub, coastal dunes, grasslands	Absent	Lack of habitat and negative survey results.
Lasthenia glabrata ssp. Coulteri	Coulter's Goldfields	CNPS 1-B	Coastal salt marsh	Absent	Lack of habitat and negative survey results.
Quercus dumosa	Nuttall's Scrub oak	CNPS 1-B	Coastal scrub and chaparral	Absent	Lack of habitat and Negative field surveys.
Cordylanthus maritimus Ssp. maritimus	Salt marsh Bird's beak	FE/SE	Coastal dunes & marshes	Absent	Lack of habitat type and negative survey results.
Orcuttia californica	California orcutt grass	FE/ CNPS 1-B	Vernal pools	Absent	Negative survey results.
Lasthenia conjugens	Contra Costa goldfields	FE/ CNPS 1-B	Grassland & vernal pools	Absent	Negative survey results.
Layia carnosa	Beach layia	FE/SE	Coastal dunes	Absent	Negative survey results.
Rorippa gambellii	Gambel's watercress	FE/ CNPS 1-B	Marshes & swamps	Present	Negative survey results
Hemizonia increscens ssp. Villosa	Gaviota tarplant	FE/ CNPS 1-B	Coastal scrub & grassland	Absent	Negative survey results.

Arabis hoffmannii	Hoffmans's rockcress	FE/ CNPS 1-B	Coastal scrub & chaparral	Absent	Negative survey results.
Gillia tenuiflora ssp. hoffmannii	Hoffmans's slender flower gilia	FE/ CNPS 1-B	Coastal dunes & scrub	Absent	Negative survey results.
Cirsium loncholepis	La Graciosa thistle	FE/ CNPS 1-B	Coastal dunes & marshes & swamps	Absent	Negative survey results.
Eriodictyon capitatum	Lompoc yerba santa	FE/ CNPS 1-B	Closed cone coniferous forest & chaparral	Absent	Negative survey results.
Sidalcea hickmanii ssp. parishii	Parish's checkerbloom	FC/ CNPS 1-B	Chaparral & lower montane coniferous forest	Absent	Negative survey results.
Lembertia congdonii	San Joaquin wooly threads	FE/ CNPS 1-B	Grassland & scrub	Absent	Negative survey results.
Castilleja mollis	Soft leaved paintbrush	FE/ CNPS 1-B	Coastal scrub & coastal dunes	Absent	Negative survey results.

Notes for Table: Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); Federal Critical Habitat (CH), State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS 1-B). Absent – no habitat is present and no further work is needed. Present – habitat is or may be present. This species may be present.

4. Biological Resources, Discussion of Avoidance and Minimization, Survey Results, Impacts and Mitigation

Note to reader. A summary of all avoidance, minimization, compensatory mitigation and monitoring requirements for all biological impacts to species and habitat that is discussed in this section is also summarized in Appendix F. Appendix F will be revised and/or updated as the project moves through project development and the permitting process.

4.1. Tree Removals throughout the Project Area of Direct Impact (ADI)

Both native and non-native trees and vegetation will be removed for the project – all trees provide potential biological habitat for various animals including nesting and foraging habitat for migratory birds and also provide scenic and aesthetic functions. The following table summarizes all tree removals and recommended replacement ratios for all trees greater than 6"dbh.

Table 3: Proposed Tree Removals (greater that 6" dbh)

Native and Non native Tree Species	Approximate DBH* and (# of Trees)	Locations	Tree Replacement Ratios
Native riparian trees: 9 arroyo willows (*Salix lasiolepis)*	8-10"dbh - 2 trees 10-12" dbh – 7 trees	Carpinteria Creek Bridge area	3:1
Native riparian tree: 1 alder *(Alnus rubra)*	7" dbh – 1 tree	Carpinteria Creek Bridge area	3:1
Native trees: 8 oaks *Quercus agrifolia*	11-22" dbh – 8 trees	2 adjacent to Carpinteria Creek Bridge, 6 others in project area	10:1
Native riparian trees: 4 black cottonwoods (*Populus balsamifera ssp. tricharpa)*	8-10" dbh - 1 tree 18-20" dbh – 3 trees	Carpinteria Creek Bridge area	3:1
Native riparian trees: *6* western sycamore (*Plantanus racemosa)*	25-30" dbh" - 4 trees	Both located in southern fill slope area of new Via Real Extension and bridge adjacent to Carpinteria	3:1

		Creek Bridge	
Non-native trees: 7 eucalyptus (*Eucalyptus globulus)*	7 trees, ranging in size from 18”- 48” dbh	All located on south bank of new Route 101 Carpinteria Creek Bridge (one closest to the creek has been used for nesting red-tailed hawks)	1:1
Non-native ornamental trees: Black acacia, myoporum, stone pine and a variety of landscape ornamental non-native trees and shrubs	Approximately 150 non native trees, ranging in size from 6-18” dbh	Located throughout the project area: used as landscape screen along highway and on edge of Mobile Home park and on north bank of bridges and in new bike lane area	1:1
Non-native trees – avocado orchard	Approximately 200 agricultural trees, all around 4-6” dbh	Located on north bank of bridges and in new bike lane area	1:1 – orchard will be removed and remaining area will be revegetated with native shrubs and trees

∗ = Diameter at breast height in inches, measured at 4 ft

4.2. Natural Communities of Special Concern in the Project Area of Direct Impact (ADI)

Natural communities that have been analyzed for potential effects include riparian habitat, wetlands, jurisdictional waters, oak woodlands, and wildlife migration corridors.

4.2.1. Riparian Habitat Natural Community

Riparian habitat is a natural community of special concern that will be affected by this project. The riparian habitat to be affected occurs on both banks of Carpinteria Creek. Currently, some of the riparian vegetation within and adjacent to Carpinteria Creek is routinely cleared as part of the Santa Barbara County Flood Control District Annual Maintenance Plan (2008-09, updated yearly). Franklin Creek has no riparian vegetation within or adjacent to the project limits because it is a concrete channel.

4.2.1.1. Survey Results for Riparian Habitat

The vegetation within the riparian zone of Carpinteria Creek includes arroyo willows, California blackberry, alder, western sycamore, blue elderberry, black cottonwood, German ivy, water hemlock, broad-leaved cattail, watercress, giant reed, garden nasturtium, horse tail, and duckweed.

The majority of the riparian canopy consists of arroyo willow, alder, and western sycamore. Non-native trees (such as eucalyptus and landscaped varieties) are also interspersed within the riparian habitat area.

Raptor nesting habitat is of special concern and was found adjacent to Carpinteria Creek. Of the two large eucalyptus trees located here, a pair of red-tailed hawks regularly uses one. These trees are scheduled for removal.

4.2.1.2. Avoidance and Minimization Efforts for Riparian Habitat

ESA fencing will be used in order to avoid and minimize impacts to riparian vegetation by limiting the construction operations to specific designated areas. ESA fencing limits will be depicted on the final design layout plans. Entrance into designated ESA's will be restricted during construction.

The original alternatives that were presented to the Project Development Team (PDT) were altered in order to minimize the amount of affects to riparian vegetation, and the existing oak grove that is adjacent to the creek. Specific changes in the alternatives involved the realignment of the Via Real extension across Carpinteria Creek for each build alternative.

Removal of the non-native eucalyptus raptor tree(s) must occur outside of the nesting season.

4.2.1.3. Project Impacts to Riparian Habitat

Project impacts include both temporary and permanent impacts to both the raptor-nesting tree and the riparian vegetation (trees and shrubs). The removal of the eucalyptus trees during the non-nesting season is considered a permanent impact to the nesting habitat of the raptors.

Impacts to Natural habitat areas are both temporary and permanent. Impacts to the riparian vegetation (trees and shrubs) along Carpinteria Creek (for all four build alternatives) includes all areas with riparian shrubs and trees that are less than 6” dbh - approximately 0.47 acres of temporary and 0.29 acres of permanent impact are anticipated.

Approximately twenty-one individual riparian trees and eight native coast live oak trees greater that 6” dbh that are adjacent to Carpinteria Creek Bridge will also be removed. The table in Section 4.1 describes the permanent impacts to the individual riparian tree species on Carpinteria Creek based on the current level of design detail. Impact area calculations are subject to change slightly after final design details are made available.

4.2.1.4. Compensatory Mitigation for Riparian Habitat Loss

Impacts to riparian vegetation (considered riparian wetlands under Coastal Commission) will be offset by replacement planting within the project limits adjacent to Carpinteria Creek. Replacement planting will be achieved using a 3:1 ratio for each individual riparian tree removed (that is greater

than 6" dbh) and for all riparian habitat acreage (shrubs and small trees) that are lost. Details will be placed in the Caltrans' Landscape Architecture Landscape Planting Plan, which will be completed after final design. The riparian vegetation replanting requires a minimum three-year plant establishment period in which all plants that have been planted are required to be alive and thriving for three years after the initial planting. The plant establishment period will help to ensure the survival of the replanting efforts. The ratio of 3:1 for replacement plantings was agreed upon by the PDT and the CDFG (Trudy Ingram 11/20/02).

Removal of an existing stand of invasive giant reed on the north bank of Carpinteria Creek and another stand adjacent to the Woodland/avocado orchard property will be included as part of Caltrans' Landscape Architecture landscape planting plan.

4.2.1.5. Cumulative Impacts for Riparian Habitat Loss

Cumulative impacts include the impacts of future State, Federal, tribal, local, or private actions that are reasonably certain to affect riparian habitat in the project area. Potential cumulative impacts to the riparian vegetation of Carpinteria Creek include the Santa Barbara County Flood Control District 2008/2009 Annual Maintenance Plan (a plan that is updated yearly since 1992). The 2008/2009 Annual Maintenance Plan includes the removal of downed and/or flow-obstructing riparian vegetation, and the use of herbicide applications that target any vegetation that trap sediments, obstruct flows, or reduce conveyances. The Santa Barbara County Flood Control District Routine Maintenance Program on Carpinteria Creek begins work just downstream of Casitas Pass Road and terminates in the vicinity of 6th Street in the City of Carpinteria.

In addition, Caltrans is currently studying the "South 101 HOV Project" (a project to widen the existing 4 lanes to six lanes by adding an HOV lane in each direction from post mile 2 – 12. 3) that may also impact riparian habitat in this same area.

Other than the above noted Santa Barbara County Flood Control District Annual Maintenance Plan and the South 101 HOV Project, Caltrans is unaware of any federal or non-federal actions that are reasonably certain to occur directly within the project area.

4.2.2. Wetland Natural Communities

Areas within and adjacent to the project limits were assessed for potential impacts to Coastal Commission-defined and ACOE jurisdictional wetlands and waters; including Franklin and Carpinteria Creeks and the roadside drainage ditches that lead to Franklin Creek.

Wetland delineations were conducted by Caltrans Biologist Mitch Dallas on 3/1/02, 4/23/07 and 5/4/07 and by Lisa Schicker on August 4, 2008 and by Karen Bewley, Morgan Robertson ad Lisa Schicker on March 4, 2010, according to the Field Guide for Wetland Delineation 1987 Corps of Engineers Manual, and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region 2006 (see Appendix D: Wetland Data Sheets).

The wetland delineation revealed that primary wetland hydrology indicators and secondary wetland hydrology indicators were not present at the Carpinteria Creek site. The delineation did confirm the mapped soil series and type. The soil at the location is comprised of the Goleta Series within the Goleta fine sandy loam taxonomic group. The soil matrix color was consistent with the soil taxonomy and had a Munsell moist color reading of 10YR 3/2. The low chroma of 2 is a character of the soil series and other potential hydric soil indicators were not found within the soil profile. The Goleta fine sandy loam taxonomic group is not listed on the local or national hydric soils list. The results of the delineation showed that no wetlands occur within the project areas around Franklin and Carpinteria Creeks.

Wetlands (Coastal Commission) were identified at the Caltrans Drainage Ditch located at Soundwall Location B9; this is the location of a fifty-year-old ditch. It is located in an upland area and appears to be fed by agricultural and residential runoff from the east side of the highway - its outlet empties into a large down drain culvert which then leads directly to Franklin Creek. This wetland area will be filled in order to build a soundwall (B9) and the Linden SB off-ramp with a 1:2 slope that will partially fill the ditch – approximately 60% of the ditch will be excavated, piped and filled.

An additional ditch on the northbound Linden Overcrossing area was added to the project in the winter of 2010. It is also located in an upland area and is fed by residential runoff from the east side of the highway - its outlet empties into a large down drain culvert which then leads directly to Franklin Creek.

A meeting with Lisa Schicker and Lara Bertaina of Caltrans, with Theresa Stevens of the Army Corps of Engineers (ACOE) took place on 8/27/08 at the project location to discuss the project, the recent addition of the drainage ditch to the project and also the recent changes to the laws.

Both ditches are considered in ACOE terms, to be "problematic areas, and area where "normal circumstances" are not present, but has all three of the wetland parameters of vegetation, hydrology and soils. After conversations with ACOE (2010, Bewley and Stevens), these areas were determined to be only Coastal Commission jurisdictional wetland areas.

4.2.2.1. Survey Results on Carpinteria Creek, Franklin Creek and the two Drainage Ditches Leading to Franklin Creek

Wetlands, as defined by the California Coastal Commission occur within the project limits for each build alternative on both Carpinteria and Franklin Creeks and in the drainage ditches leading to Franklin Creek.

4.2.2.2. Avoidance and Minimization Efforts for Wetlands (Coastal Commission)

Impacts to wetlands will be addressed through avoidance and minimization efforts that as built-into the project.

Avoidance and minimization for impacts to wetlands are needed to address the temporary and permanent filling of wetlands in the Caltrans drainage ditch that leads to Franklin Creek. There is a federal and state "no-net-loss" policy on wetlands; therefore it is recommended that additional wetlands be created at 3:1 replacement ratio.

An alternative compensatory mitigation strategy could be for Caltrans to provide a financial contribution (through a cooperative agreement) to fund local agency efforts to restore and enhance Franklin Creek and Carpinteria Marsh.

4.2.2.3. Project Impacts to Wetlands (Coastal Commission)

Impacts to wetlands in Carpinteria Creek and to the drainage ditches leading to Franklin Creek will be permanent and temporary.

Estimated quantities of impacts to Coastal Commission jurisdictional wetlands include approximately .47 acres of temporary impacts (during construction) and .29 acres of permanent impacts at Carpinteria Creek and .05 acres of temporary and .02 acres of combined permanent impacts to wetlands at the two drainage ditches leading to Franklin Creek.

Carpinteria Creek. Permanent impacts to Carpinteria Creek will occur in order to facilitate construction of a new Via Real Bridge, the northbound Route 101 off ramp, and widening and replacement of the Route 101 bridges. The existing Route 101 bridges would be replaced with bridges that have all new piers and abutments above the ordinary plane of high water, which is the jurisdictional limit of Waters of the U.S. under Section 401 of the Clean Water Act.

The current Route 101 bridge design may also require the placement of rock slope protection below the ordinary plane of high water on the north bank of the creek.

Franklin Creek. Franklin Creek is a channelized stream and there are no wetlands.

Drainage Ditches Leading to Franklin Creek. Temporary and permanent impacts to the drainage ditches leading to Franklin Creek will also occur during construction due to dewatering activities and afterwards due to filling.

More detailed engineering design work conducted in the detailed design (PSE) stage of the project will quantify the specific final amounts of disturbance below the ordinary plane of high water.

Specific details of the jurisdictional drainage work will be forthcoming in the permit request packages for Coastal Development permits and Section 401 and 404 of the Clean Water Act from the RWQCB and the ACOE respectively and a Streambed Alteration Agreement from the CDFG.

4.2.2.4. Compensatory Mitigation for Impacts to Wetlands (Coastal Commission)

Avoidance and minimization for impacts to both wetlands and waters of the U.S. address the temporary and permanent filling of wetlands and waters in the Caltrans drainage ditches leading to Franklin Creek. Because of the federal and state "no-net-loss" policy on wetlands, is recommended that additional wetlands be created as compensatory mitigation at 3:1 replacement ratio.

An alternative compensatory mitigation strategy could be for Caltrans to provide a financial contribution (through a cooperative agreement) to fund local agency efforts to restore and enhance Franklin Creek and Carpinteria Marsh.

Compensatory mitigation is not proposed for permanent or temporary impacts to Carpinteria Creek or for temporary impacts on Franklin Creek with Alternatives #1 and 4. All impacts are addressed as part of the project through avoidance and minimization efforts.

4.2.2.5. Cumulative Impacts to Wetlands (Coastal Commission)

Cumulative impacts include the impacts of future State, Federal, tribal, local, or private actions that are reasonably certain to affect riparian habitat in the project area. Caltrans is in the process of studying the "South 101 HOV Project" (a project widen the existing 4 lanes to six lanes by adding an HOV lane in each direction from post mile 2 – 12. 3) that may also impact wetlands defined by the Coastal Commission. Other than the above noted "South 101 HOV Project", and the updated list of local projects that the City of Carpinteria publishes, Caltrans is unaware of any other federal or non-federal actions that are reasonably certain to occur in the project area.

4.2.3. Jurisdictional "Other Waters" of the U.S.

Jurisdictional "Other Waters" of the U.S. are open waters (not wetlands), which are also regulated by the Army Corps of Engineers. "Other Waters" occur in both Carpinteria and Franklin Creeks and in the drainage ditches leading to Franklin Creek.

4.2.3.1. Survey Results for Jurisdictional "Other Waters" of the U.S. at Carpinteria Creek, Franklin Creek and the Caltrans Drainage Ditch Leading to Franklin Creek

Jurisdictional "Other Waters of the U.S." occur within the project limits for each build alternative on both Carpinteria and Franklin Creeks.

4.2.3.2. Avoidance and Minimization Efforts for Jurisdictional "Other Waters" of the U.S.

Impacts to jurisdictional "Other Waters" within Carpinteria Creek will be addressed through avoidance and minimization efforts that as built-into the project. The project includes restoring 1,560 square feet of Waters of the U.S. by removing the existing concrete low-flow bike and pedestrian crossing. Restoration of these Waters of the U.S. will contribute to avoiding permanent impacts associated with any of the build alternatives.

Compensatory mitigation is not proposed for temporary impacts that will occur on Franklin Creek with Alternatives #1 and 4. Following construction within Franklin Creek for Alternatives #1 and 4, the channel will be cleaned of any debris and left in its current condition.

Additional Avoidance and minimization efforts are as follows:

Delineation of ESA's on all maps and use of ESA fencing in the field during construction

Dewatering of the creeks will only take place during the low flow summer months, between May 31st t through October 31st. Water will be diverted around the work sites using the same method for both creeks. Sandbags and filter fabric will be used to from a cofferdam just upstream of the work sites. The water will be diverted in a flexible pipe culvert of adequate size to facilitate fish passage. Following construction, the channel bottom of Carpinteria Creek will be restored to a natural channel bottom and to its original elevation.

Following construction within Franklin Creek for alternatives #1 and #4, the channel will be cleaned of any debris and left in its current condition. Upon completion of construction activities on both creeks, the materials for dewatering will be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

Following construction within the drainage ditch leading to Franklin Creek, the remainder of the channel that remains will be preserved to accommodate wildlife and plants that will be removed and relocated from the area to be filled.

4.2.3.3. Project Impacts to Jurisdictional "Other Waters" of the U.S.

Impacts to jurisdictional "Other Waters" of the U.S. in Carpinteria Creek, Franklin Creek and to the drainage ditches leading to Franklin Creek and will be permanent and temporary.

Carpinteria Creek. Permanent impacts to "Other waters" in Carpinteria Creek will occur in order to facilitate construction of a new Via Real Bridge, the northbound Route 101 off ramp, and widening and replacement of the Route 101 bridges. The existing Route 101 bridges would be replaced with bridges that have all new piers and abutments above the ordinary plane of high water, which is the jurisdictional limit of Waters of the U.S. under Section 401 of the Clean Water Act.

The current Route 101 bridge design will require the placement of rock slope protection below the ordinary plane of high water on the north bank.

Temporary impacts for Carpinteria Creek will be construction related and will be a result of the dewatering of the creek, removal and construction of the new bridges. Dewatering is required to facilitate construction of the Via Real Bridge, the new northbound Route 101 off ramp, and the replacement and widening of both the north and southbound Route 101 bridges.

Dewatering of the creek would temporarily raise water levels directly above the cofferdams, however fish passage would be maintained through a flexible pipe culvert of adequate size in order to facilitate fish passage in Carpinteria Creek.

Temporary work area impacts for both bridges are estimated at .33 acres (see Appendix D2).

Permanent impacts to Jurisdictional "other waters" of the US within Carpinteria Creek include restoring 1,560 square feet of "Other Waters of the U.S." by removing the existing concrete low-flow bike and pedestrian crossing (channel restoration), which is part of each proposed build alternative. Totals for permanent impacts area include .036 acres (gain, due to concrete removal and channel restoration) and .166 acres (loss, due to permanent rip rap installation).

Preliminary design indicates that bank stabilization features below the ordinary high water mark of Carpinteria Creek may also be required and would require an individual permit process as detailed in the 2007 Regional Conditions for the Los Angeles District of the ACOE.

Franklin Creek. There are no permanent impacts to Franklin Creek for any of the build alternatives.

Temporary impacts to jurisdictional waters within Franklin Creek may occur with alternatives #1 and #4. Impacts will be related to the dewatering of the channel in order to facilitate construction of

a new northbound bridge deck that is a component of alternative #1 and #4. Quantities of temporary impacts are not available at this time – further survey and design detail are required.

More detailed engineering design work conducted in the detailed design (PSE) stage of the project will quantify the specific final amounts of disturbance below the ordinary plane of high water. Specific details of the jurisdictional drainage work will be forthcoming in the permit request package for Section 401 and 404 of the Clean Water Act from the RWQCB and the ACOE respectively and a Streambed Alteration Agreement from the CDFG.

4.2.3.4. Compensatory Mitigation for Impacts to Jurisdictional "Other Waters" of the U.S.

Avoidance and minimization for "other waters" of the US loss address the temporary and permanent filling other waters of the US. Compensatory mitigation is not proposed for permanent or temporary impacts to Carpinteria Creek or for temporary impacts on Franklin Creek with Alternatives #1 and 4. All impacts are addresses as part of the project through avoidance and minimization efforts.

4.2.3.5. Cumulative Impacts to Jurisdictional "Other Waters" of the U.S.

Cumulative impacts include the impacts of future State, Federal, tribal, local, or private actions that are reasonably certain to affect riparian habitat in the project area. Caltrans is in the process of studying the "South 101 HOV Project" (a project widen the existing 4 lanes to six lanes by adding an HOV lane in each direction from post mile 2 – 12. 3) that may also impact wetlands and waters of the U.S. in this same area. Other than the above noted "South 101 HOV Project", and the updated list of local projects that the City of Carpinteria publishes, Caltrans is unaware of any other federal or non-federal actions that are reasonably certain to occur in the project area.

Table 4 Summary of Impacts to Wetlands (CCC) and ACOE "Other Waters" of the U.S.

Location	CA Coastal Commission-Defined Wetlands In hectares (acres)		Other Waters of the U.S. In hectares (acres)		
	Temporary Impacts	Permanent Impacts	Temporary Impacts	Permanent Impacts	
Carpinteria Creek	0.19 (0.47 acre)	0.11 (0.29 acre)	0.13 (0.33 acre)	**Gain: Channel Restoration**	**Loss: Rip Rap Installation**
				0.0145 (0.036 acre)	0.0675 (0.166 acre)
Franklin Creek	0	0	0	0	
Drainage Ditch-to Franklin Ck – Linden/101 SB off ramp	0.02 (0.04 acres)	0.006 (0.01 acres)	0	0	
Drainage Ditch to Franklin Ck.- NB 101-NW quad Linden Ave. Interchange	0.002 (0.006 acres)	0.002 (0.006 acres)	0	0	
Mitigation Ratio	1:1	3:1	1:1	3:1	

4.2.4. Oak Woodland Natural Communities

Senate Concurrent Resolution No. 17 (Relative to Oak Woodlands) defines oak woodlands as a five-acre circular area containing five or more oak trees per acre. Within and adjacent to the project limits, oak trees, but not true continuous oak woodlands (as defined by the Resolution) occur within the project limits. There is one small (<1.2 acres) isolated stand of coast live oaks (*Quercus agrifolia*) located next to a maintained open field that is adjacent to Carpinteria Creek and the Via Real bike path. Other oak trees within the project limits are isolated single trees or rows of trees planted along property fence lines. Oak woodlands are known to occur in the foothills near the City of Carpinteria.

4.2.4.1. Survey Results for Oak Woodlands

The stand of oaks located next to the maintained open field that is adjacent to Carpinteria Creek and the Via Real bike path consists of a total of 18 single and multi stemmed coast live oaks. Other oaks within the project limits occur within Caltrans right of way and private properties including the Woodland property, the Ogan property, and the Verizon property, but are not considered to have the characteristics of a natural oak community.

4.2.4.2. Avoidance and Minimization for Oak Woodlands

All oaks and native plants that will remain in the project vicinity will be delineated on the plans and fenced in the field as ESA areas, in order to protect and preserve them during construction.

Oak replacement plantings will be at a 10:1 ratio for each oak tree removed - these plantings will be detailed in Caltrans' Landscape Architecture Landscape Planting Plan. The oak tree replacements will have a three-year plant establishment period in which all trees that have been planted are required to be alive and thriving for three years after the initial planting. The plant establishment period will help to ensure the success of the replanting effort.

4.2.4.3. Project Impacts to Oak Woodlands

All oak trees to be impacted by the proposed project are individual coast live oaks (*Quercus agrifolia*) but are not considered a natural community of oak woodlands. Following the redesign of the Via Real extension for each build alternative, one 11.5 inch DBH and one 18-inch DBH coast live oak will be removed from the existing stand. For each build alternative, one 22-inch DBH coast live oak is removed for the proposed new northbound Casitas Pass off ramp. The Via Real extension near Valecito Road would require the removal of five oaks with each build alternative. The five oaks range in size from 12-inch DBH to17 inch DBH. The following table describes the impacts to oaks with each build alternative.

Table 5: Locations of all Native Oak Tree Removals

Coast Live Oaks (*Quercus agrifolia*) removed with all Build Alternatives – size in approx. dbh*	Location of Oak Tree Removal	NB or SB
11.5"	Via Real Extension by Carpinteria Creek Bridge Area	NB
12"	Via Real Extension near Vallecito Road	NB
13"	Via Real Extension near Vallecito Road	NB
14.5"	Via Real Extension near Vallecito Road	NB
16"	Via Real Extension near Vallecito Road	NB
17"	Via Real Extension near Vallecito Road	NB
18"	Via Real Extension by Carpinteria Creek Bridge Area	NB
22"	New NB Casitas Pass off ramp	NB
8 total native oak trees		

* Diameter (in inches) at breast height measured at 4 feet

4.2.4.4. Compensatory Mitigation for Loss of Oak Woodlands

Impacts to oak trees will be offset by replacement planting within the project limits - these replantings are the avoidance and minimization efforts included with the project design. No further compensatory mitigation is required.

4.2.4.5. Cumulative Impacts to Oak Woodlands

Cumulative include the impacts of past, present, and reasonably foreseeable future State, Federal, tribal, local, or private actions that are reasonably certain to occur in the project area. Other than the

"South 101 HOV Project" (a project to widen the existing 4 lanes to six lanes by adding an HOV lane in each direction from post mile 2 – 12. 3), Caltrans is unaware of any other federal or non-federal actions that are reasonably certain to affect oak woodlands in the project area.

4.3. Special Status Species Potentially in the Project BSA and ADI

Potential special-status species identified from the CNDDB search and the UFWS Species list as potentially occurring within the BSA and ADI were targeted during the initial site assessment and field surveys.

Based on individual species' distribution patterns and habitat associations observed within the study area, the list was narrowed down for those considered having potential to occur within the ADI or be impacted by the project and these species will be discussed further. Of all these species, only steelhead were physically present within the ADI (in Carpinteria Creek), yet the project has potential to impact some special status wildlife indirectly. These impacts will be discussed in the following sections of this report.

Table 6: Project Study Area - Special Status Species

Scientific Name	Common Name	Status	Specific Habitat Present/ Absent	Species Present/ Absence	Rationale
Empidonax traiillii extimus	Southwestern Willow Flycatcher	FE	Absent	Absent	Lack of nesting habitat, potential migrant through area.
Vireo bellii pusillus	Least Bell's Vireo	FE/ SE	Absent	Absent	Lack of specific habitat requirements.
Rallus longirostris levipes	Light-footed Clapper rail	FE/SE	Present-potential adjacent	Absent	Lack of nesting habitat. No known records near Carpinteria Creek.
Coccyzus americanus	Yellow-billed cuckoo	FC	Present	Absent	Lack of nesting habitat. Potential migrant through area. No known records near Carpinteria Creek.
Rana aurora draytonii	California red-legged Frog	FT	Present	Absent	Negative USFWS protocol level surveys.
Eucyclogobius newberryi	Tidewater Goby	FE	Present	Present	Lack of breeding habitat. Potential movement corridor in Carpinteria Creek.
Oncorhynchus mykiss S. Ca. ESU	Steelhead Trout	FE SSC	Present	Present	Migration corridor only, lacking spawning or rearing habitat.

Cordylanthus maritimus ssp. maritimus	Salt marsh Bird's beak	FE/SE	Absent	Absent	Lack of habitat and negative field surveys.
Rorippa gambellii	Gambel's watercress	FE/ CNPS 1-B	Present	Absent	Negative survey results
Quercus dumosa	Nuttall's Scrub oak	CNPS 1-B	Absent	Absent	Lack of habitat and negative field surveys.
Lasthenia glabrata ssp. Coulteri	Coulter's goldfields	CNPS 1-B	Absent	Absent	Lack of habitat and negative field surveys.
Atriplex Coulteri	Coulter's saltbush	CNPS 1-B	Absent	Absent	Lack of habitat and negative field surveys.

Status: Federal Endangered (FE); Federal Threatened (FT); Federal Proposed (FP, FPE, FPT); Federal Candidate (FC), Federal Species of Concern (FSC); State Endangered (SE); State Threatened (ST); Fully Protected (FP); State Rare (SR); State Species of Special Concern (SSC); California Native Plant Society (CNPS 1-B). Absent – no habitat is present and no further work is needed. Present – habitat is or may be present. This species may be present.

4.4. Special Status Plant Species Potentially in the Project BSA/ADI

Special status plant species that were identified on the USFWS species list and on a CNDDB search that have potential to occur within the project limits include the salt marsh bird's beak, Gambel's watercress, Coulters saltbush, Nuttall's scrub oak, and Coulters goldfields. Other special status plant species that require habitats that is different from what is found within the action area or ADI are noted in Table1.

4.4.1. Salt marsh Bird's Beak

The salt marsh bird's beak (Cordylanthus maritimus ssp. maritimus) is federally and State listed as endangered. This species is known to occur in coastal marshes and swamps in addition to coastal dune habitat types (Tibor 2001).

4.4.1.1. Survey Results for Salt marsh Bird's Beak

The habitat requirements for the salt marsh bird's beak do not occur within or adjacent to the project limits. The population that occurs closest to the project is found at the Carpinteria salt marsh. Botanical surveys within the BSA were negative for the presence of the salt marsh bird's beak. The project will not impact this species.

4.4.2. Gambel's Watercress

Gambel's watercress (Rorippa gambellii) is federally and State listed as endangered. This species is known to occur in freshwater marshes and streams (Tibor 2001); the closest sighting to the project listed in CNDDB is at Vandenberg AFB, approximately 64 miles northwest.

4.4.2.1. Survey Results for Gambel's Watercress

The habitat requirements for Gambel's watercress occur within or adjacent to the project limits at both Carpinteria Creek and the tributary drainage to Franklin Creek (soundwall Location B9). Botanical surveys within the BSA were negative for the presence of Gambel's watercress and the project will not impact this species.

4.4.3. Coulter's Saltbush

The Coulter's saltbush (*Atriplex coulteri*) has a 1-B listing by the California Native Plant Society and is known to occur in coastal bluff scrub, coastal scrub, and coastal dune habitat types (Tibor 2001).

4.4.3.1. Survey Results for Coulter's Saltbush

The habitat requirements for the Coulter's saltbush do not occur within or adjacent to the project limits. The population that occurs closest to the project is found at the Carpinteria Salt Marsh. Botanical surveys within the BSA were negative for the presence of the Coulter's saltbush. The project will not impact this species.

4.4.4. Nuttall's Scrub oak

Nuttall's scrub oak (*Quercus dumosa*) has a 1-B listing by the California Native Plant Society and is known to occur in sandy coastal scrub and chaparral habitat types. This species prefers clay loam soil types (Tibor 2001).

4.4.4.1. Survey Results for Nuttall's Scrub-oak

The habitat requirements for Nuttall's scrub oak do not occur within or adjacent to the project limits. The population that occurs closest to the project is found near the Toro Canyon reservoir. Botanical surveys within the BSA were negative for the presence of the Nuttall's scrub oak. The project will not have any impacts to this species.

4.4.5. Coulter's Goldfields

Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) have a 1-B listing by the California Native Plant Society and are known to occur in a coastal salt marsh habitat type (Tibor 2001).

4.4.5.1. Survey Results fop Coulter's Goldfields

The habitat requirements for Coulter's goldfields do not occur within or adjacent to the project limits. The population that occurs closest to the project is found at the Carpinteria salt marsh. Botanical surveys within the BSA were negative for the presence of Coulter's goldfields. The project will not have any impacts to this species.

4.5. Special Status Animal Species Potentially in the Project BSA/ADI

Special status animal species that have a potential to occur within the Biological Study area were identified from the USFWS species list and a search of the CNDDB. They include steelhead trout; tidewater goby, California red-legged frog, southwestern willow flycatcher, least Bell's vireo, and the light footed clapper rail.

4.5.1. Steelhead Trout, Southern California Evolutionary Significant Unit and Critical Habitat.

Steelhead trout, an ocean-going form of rainbow trout (*Oncorhynchus mykiss*), are native to Pacific Coast streams from Alaska south to northwestern Mexico (NOAAF 1997). Wild steelhead populations in California have decreased significantly from their historic levels (NOAAF 1997). This decline prompted listing of the Southern California evolutionary significant unit of steelhead as endangered on 08/18/97, which includes all naturally spawned populations of steelhead and their progeny residing below long-term impassable barriers. The southern California evolutionary significant unit includes all naturally spawned populations of steelhead (and their progeny) in streams from the Santa Maria River to Malibu Creek (inclusive). The steelhead trout is also listed as a State species of special concern.

Carpinteria Creek is also a designated Critical Habitat for Southern California steelhead. The Endangered Species Act (ESA) requires the federal government to designate "critical habitat" for any species it lists under the ESA; in this case, steelhead. "Critical habitat" is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation.

The ESA protects threatened and endangered species in several ways, including Critical Habitat areas. Under Section 7, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat. These complementary requirements apply only to federal agency actions, and the latter only to habitat that has been designated. A critical habitat designation does not set up a preserve or refuge, and applies only when federal funding, permits, or projects are involved.

4.5.1.1. Survey Results for Steelhead

Steelhead trout are known to occur in Carpinteria Creek (personal observation Dallas, 4/26/02). Carpinteria Creek has been ranked as #1 in the steelhead recovery ranking of watersheds of southern

Santa Barbara County in the study, "*Steelhead Assessment and Recovery Opportunities in Southern Santa Barbara County*". (June 2002).

Steelhead trout are not known to occur in Franklin Creek. Within and adjacent to the project limits Franklin Creek is confined to a concrete channel that is of such a length that it is considered an impassable barrier to steelhead trout migration (personal communication NOAAF Glowacki, 11/26/02).

4.5.1.2. Avoidance and Minimization Efforts for Steelhead

During the project development process it was concluded that the removal of the existing concrete low-flow bike and pedestrian crossing on Carpinteria Creek would be included as an avoidance and minimization feature of each build alternative. The removal of the existing crossing will clear the channel of a potential movement barrier and return this portion of the creek to a natural channel bottom condition and this will benefit both steelhead and tidewater goby.

The following additional avoidance and minimization measures will be incorporated into each build alternative.

A 3:1 ratio replacement of all riparian vegetation to be removed during construction is part of all project alternatives.

An very large existing stand of a non-native invasive plant species, *Arundo donax,* or giant reed in Carpinteria Creek has already been sprayed, but the large root wad remains and will be removed.

Construction within or adjacent to Carpinteria Creek would only take place during low flow between May 1st and October 31st in order to avoid impacting migrating steelhead trout.

Fish passage would be maintained during construction through a flexible pipe culvert of adequate size in order to facilitate fish passage.

Following water diversion installation, any remaining fish within the area to be dewatered will be removed using a seine and dip nets. Any steelhead trout encountered during the seining of the dewatered area will be relocated to a suitable location within Carpinteria Creek.

All disturbance to riparian vegetation and jurisdictional waters shall be minimized with the use of ESA fencing and all soil exposed as a result of the project shall be re-vegetated using native hydroseeding, or live planting methods.

Caltrans shall restore the contour, slope and surrounding area of the creek bed to pre-construction conditions or better.

4.5.1.3. Project Impacts to Steelhead

The build alternatives "may affect, but are not likely to adversely affect" this species or its critical habitat. If the build alternatives were to affect this species, "incidental take" of steelhead may occur. Incidental take could be a result of harassment, harm, or mortality of steelhead during water diversion, demolition and construction, or relocation actions if they become necessary.

Following the selection of the preferred alternative, formal Section 7 of the Endangered Species Act consultation will begin between FHWA/Caltrans and NOAAF as a result of potential impacts to steelhead trout and Critical Habitat on Carpinteria Creek.

The build alternatives will have both temporary and permanent impacts to the migration corridor habitat on Carpinteria Creek within the project limits. Permanent positive impacts will result from the removal of the concrete stream crossing which is currently an impediment to steelhead migration.

Temporary impacts could occur during construction with the water diversion and dewatering activities. The water diversion and dewatering would temporarily raise water levels directly above the cofferdam, however fish passage would be maintained through a flexible pipe culvert of adequate size in order to facilitate fish passage.

Given that the window for work in the creek is outside of the time frame for steelhead trout migration, it is anticipated that any incidental take that could occur would be a take of steelhead trout juveniles during the water diversion and dewatering of Carpinteria Creek. Following the water diversion, the remaining fish within the area to be dewatered will be removed using a seine and dip nets. Any steelhead trout encountered during the seining of the dewatered area will be relocated to a suitable location within Carpinteria Creek.

4.5.1.4. Compensatory Mitigation for Steelhead

Due to the extensive avoidance and minimization efforts, additional compensatory mitigation measures will not be required.

4.5.1.5. Cumulative Impacts to Steelhead

Cumulative impacts include the impacts of past, present, and reasonably foreseeable future State, tribal, local, or private actions that are reasonably certain to occur in the project area. Other than the above noted "Santa Barbara HOV Project" (a project to widen the existing 4 lanes to six lanes by adding an HOV lane in each direction from post mile 2 – 12. 3), Caltrans is unaware of any other federal or non-federal actions that are reasonably certain effect steelhead trout in Carpinteria Creek.

4.5.2. Tidewater Goby

The tidewater goby (*Eucyclogobius newberryi*) is a small fish rarely exceeding 50 millimeters (2 inches) in length that occurs in tidal streams associated with coastal wetlands in California. Since 1900, the tidewater goby has disappeared from nearly 50 percent of the coastal lagoons within its historic range, including 74 percent of the lagoons south of Morro Bay in Central California (USFWS 2000). This decline prompted listing of the tidewater goby as endangered on 02/04/94. This project does not lie within designated critical habitat areas for tidewater goby.

A member of the family *Gobiidae*, the tidewater goby is the only species in the genus Eucylogobius and is almost unique among fishes along the Pacific coast of the United States in its restriction to waters with low salinities in California's coastal wetlands. Although usually associated with lagoons, the tidewater goby has been documented in ponded fresh water habitats as far as 5 miles upstream from San Antonio lagoon in Santa Barbara County (USFWS 2000).

4.5.2.1. Survey Results for Tidewater Goby

Surveys for tidewater gobies were not conducted for this project due to their known presence of in Carpinteria Creek and portions of Franklin Creek. Surveys for suitable breeding and spawning habitat were conducted and it was determined that suitable breeding and spawning habitat does not occur within the project limits, although the species could potentially move through the area of disturbance during construction activities on Carpinteria Creek. Tidewater gobies are known to occur in Carpinteria Creek from the mouth of the creek to one mile up stream (CNDDB & personal communication with USFWS on 11/21/02). The project is located approximately .6 mile upstream.

Tidewater gobies are not known to occur within the project limits on the channelized section of Franklin Creek due to an absence of appropriate habitat however, but they are known to occur at the mouth of the creek after the concrete channel transitions into a natural substrate within the Carpinteria salt marsh, which is approximately .3 mile downstream from the project area.

4.5.2.2. Avoidance and Minimization Efforts for TidewaterGoby

During the project development process it was concluded that the removal of the existing concrete low-flow bike and pedestrian crossing on Carpinteria Creek would be included as an avoidance and minimization feature of each build alternative. The removal of the existing crossing will clear the channel of a potential movement barrier and return this portion of the creek to a natural channel bottom condition and this will benefit both steelhead and tidewater goby.

Additional avoidance and minimization measures include:

A 3:1 ratio for replanting of all removed riparian vegetation and the removal of non-native invasive plant species such as giant reed.

All work activities within and adjacent to Carpinteria Creek shall be completed outside of the primary breeding season to reduce the potential harassment and mortality of tidewater gobies. The window of work for construction within or adjacent to Carpinteria Creek and Franklin Creek would be during the low flow period between May 1st and October 31st.

Only qualified personnel authorized under a biological opinion shall participate in activities associated with the capture, handling, and relocation of tidewater gobies. The names and credentials of personnel who desire to conduct these activities shall be supplied to the USFWS for their review and approval at least 15 day prior to the onset to these activities.

If water is to be pumped around work sites, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent tidewater gobies from entering the pump system.

During the de-watering effort, if present, as many tidewater gobies as possible shall be removed prior to draining the site. After barriers are constructed, tidewater gobies shall be captured, transported in buckets, and released in the most appropriate habitat immediately adjacent to the de-watered area. If a beach seine is used, it shall be pulled to shore in a deliberate manner with care being taken to avoid rolling the lead line inward. The number of tidewater gobies shall be estimated prior to release. All debris and aquatic and emergent vegetation in the pumped area shall be carefully inspected for tidewater gobies and other vertebrates. As the work site is de-watered, remaining pools shall be inspected for tidewater gobies. As many individuals as possible shall be captured using dip nets and other appropriate tools and moved as described above. Handling time for tidewater gobies shall be minimized to the maximum extent practicable.

In work areas that have been de-watered, water above the barrier shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, the barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

Fish passage would be maintained during and after construction.

All disturbance to potential tidewater goby habitat including riparian vegetation and jurisdictional waters shall be minimized with the use of ESA (environmentally sensitive area) fencing and all soil exposed as a result of the project shall be revegetated using native hydroseeding or live planting methods.

If the substrate of the stream is altered during work activities, it shall be graded or otherwise treated to pre-construction conditions or better after the work is completed.

4.5.2.3. Project Impacts to Tidewater Goby

The build alternatives "may affect but are not likely to adversely affect" tidewater goby. If the project were to affect the species, then "incidental take" of tidewater gobies in Carpinteria Creek may occur. Incidental take could be a result of harassment, harm, or mortality of tidewater gobies during water diversion, demolition, construction, or relocation actions if they become necessary. Take of tidewater gobies is not anticipated although it has the potential to occur.

Following the selection of a preferred alternative, Caltrans will enter into formal consultation under Section 7 of the Endangered Species Act with the USFWS, for tidewater gobies in Carpinteria Creek.

Alternatives 1 and 4 propose work in and adjacent to Franklin Creek by replacing the northbound Route 101 Bridge over Franklin Creek. This work is "not likely to adversely affect" the tidewater goby due to a lack of habitat within the project limits on Franklin Creek or the ditch draining to Franklin Creek.

Each build alternative will have both temporary and permanent impacts to the movement corridor habitat on Carpinteria Creek within the project limits. Temporary impacts could occur with the water diversion and dewatering. The water diversion and dewatering would temporarily raise water levels directly above the cofferdam, however fish passage would be maintained through a flexible pipe culvert of adequate size in order to facilitate fish passage.

Given that the window for work in the creek is outside of the primary breeding season of tidewater gobies, it is anticipated that any incidental take that could occur would be a take of tidewater gobies potentially moving through the area during the water diversion and dewatering of Carpinteria Creek. Following the water diversion, any remaining tidewater gobies within the area to be dewatered will be removed using a seine and dip nets. Any tidewater gobies encountered during the seining of the dewatered area will be relocated to a suitable location within Carpinteria Creek.

4.5.2.4. Compensatory Mitigation for Tidewater Goby

Due to the extensive avoidance and minimization efforts, additional compensatory mitigation measures will not be required.

4.5.2.5. Cumulative Impacts to Tidewater Goby

Cumulative impacts include the impacts of past, present, and reasonably foreseeable future State, tribal, local, or private actions that are reasonably certain to occur in the project area. Other than the "South 101 HOV Project" (a project to widen the existing 4 lanes to six lanes by adding an HOV lane in each direction from post mile 2 – 12. 3), Caltrans is unaware of any federal or non-federal

actions that are reasonably certain to affect tidewater goby in Carpinteria and Franklin Creek watersheds.

4.5.3. California red-legged frog (CRLF)

The California red-legged frog *(Rana aurora draytonii)* is one of two subspecies of the red-legged frog (*Rana aurora)* found on the Pacific coast. The California red-legged frog is the largest native frog in the western United States (4 to13 cm). The California red-legged frog has sustained a 70 percent reduction in its geographic range in California as a result of several factors acting singly or in combination (Jennings 1992). Habitat loss and alteration, overexploitation, and introduction of exotic predators were significant factors in the California red-legged frog's decline in the early to mid 1900s. California red-legged frogs are known to occur in 243 streams or drainages in 22 counties, primarily in the central coastal region of California. The closest sighting to the project area listed in CNDDB is on Santa Monica Creek, approximately 1 mile north of Foothill Blvd, approximately two miles north east of the project area. Due to a decline in the population size and habitat for the species it was listed as federally threatened under the Endangered Species Act of 1973, as amended effective 06/24/96. This project is not located in a designated Critical habitat area.

4.5.3.1. Survey Results for CRLF

Surveys for California red-legged frogs were conducted according to the USFWS protocol in Guidance on Site Assessment and Field Surveys for California Red-legged Frogs dated 02/18/97 and five additional surveys were conducted according to the current 2005 USFWS Revised Guidance on Site Assessments and Field Surveys for the CRLF. Surveys were conducted at Carpinteria Creek on 3/1/02, 10/30/2, 11/1/02, 4/23/07, 5/4/07, 5/29/07 and 7/25/07 by Caltrans Biologist Mitch Dallas and on the Caltrans drainage ditch by Lisa Schicker on July 14 and August 4, 2008. The surveys at Carpinteria Creek revealed an absence of red-legged frogs within and adjacent to the project area. The surveys did reveal Pacific tree frogs (*Hyla regilla*) and one bullfrog (*Rana catesbeiana*), an invasive amphibian species at Carpinteria Creek. No evidence of red-legged frogs was found at the Franklin Creek or at the Caltrans drainage ditch. Additional protocol level surveys were not conducted on the drainage ditch due to lack of habitat connectivity. No further studies for this species are required at this time. No impacts to the species will result from the current proposed project alternatives.

4.5.4. Southwestern willow flycatcher

There are four or five recognized subspecies (races) of the willow flycatcher (*Empidonax traiillii*). These subspecies are distinguished primarily by subtle differences in color and morphology (size and shape). The southwestern willow flycatcher is somewhat paler, and has slightly different wing and tail length ratios. Each of the four subspecies occupies distinct breeding ranges. The southwestern willow flycatcher *(E.t. extimus)* breeding range includes southern California (from the

Santa Ynez River south), Arizona, New Mexico, extreme southern portions of Nevada and Utah, extreme southwest Colorado, and western Texas. Records of probable breeding southwestern willow flycatchers in Mexico are rare, and restricted to extreme northern Baja California and Sonora.

The southwestern willow flycatcher breeds in dense riparian habitats along rivers, streams, or other wetlands. The vegetation can be dominated by dense growths of willows (*Salix* sp.), seep willow (*Baccharis salicifolia*), or other shrubs and medium-sized trees. There may be an overstory of cottonwood (*Populus* sp.), tamarisk (*Tamarix* sp.), or other large trees, but this is not always the case. In some areas, the flycatcher will nest in habitats dominated by tamarisk and Russian olive (*Eleagnus angustifolia*). One of the most important characteristics of the habitat is the presence of dense vegetation, usually throughout all vegetation layers present (USFWS 1995).

Nearly all southwestern willow flycatcher breeding habitats are within close proximity (less than 20 meters) of water or very saturated soil. This water may be in the form of large rivers, smaller streams, springs, or marshes.

The southwestern willow flycatcher population has declined during the last 100 years, primarily due to the loss, fragmentation, and modification of riparian habitats. In 1993, the U.S. Fish and Wildlife Service formally proposed to list the flycatcher as a federal endangered species, and to designate critical habitat on 07/23/93. In a 1995 ruling, the Service found that the flycatcher population was currently very low and faced a significant threat of extinction unless protected. Therefore, the flycatcher was listed as endangered on 02/27/95 with the designation of critical habitat in July 1997.

4.5.4.1. Survey Results for Southwestern Willow Flycatcher

The specific habitat types (dense willow riparian) required for this subspecies do not occur within or adjacent to the project limits. No impacts to the species will result from the current proposed project alternatives. No further studies for this subspecies are required. Contact was made with local birding experts Dave Compton and Karen Bridgers of the Santa Barbara Chapter of the Audubon Society. This contact was made in order to confirm the habitat assessment that was made for the southwestern willow flycatcher. Both individuals confirmed that the project area or areas adjacent did not represent nesting habitat for this subspecies. There are no known records of this subspecies nesting in the biological study area.

4.5.5. Least Bell's vireo

The least Bell's vireo (*Vireo bellii pusillus*) is a small, olive-gray migratory songbird that nest and forages almost exclusively in riparian woodland habitats. Least Bell's vireo nesting habitat typically consists of well-developed overstories and understories, and low densities of aquatic and herbaceous cover. The under story frequently contains dense sub shrub and shrub thickets.

Due to population declines the species was listed as endangered by the CDFG Commission on 05/27/80 under the California Endangered Species Act of 1970. Species decline also prompted a federal listing of endangered under the Endangered Species Act of 1973, as amended effective 05/02/86. Critical habitat for this species was designated on 02/02/94.

4.5.5.1. Survey Results for Least Bell's Vireo

The specific habitat types required for this subspecies do not occur within or adjacent to the project limits. No impacts to the species will result from the current proposed project alternatives. No further studies for this subspecies are required. Contact was made with birding experts Dave Compton and Karen Bridgers of the Santa Barbara Chapter of the Audubon Society. This contact was made in order to confirm the habitat assessment that was made for the least bell's vireo. Both individuals confirmed that the project area or areas adjacent did not represent nesting habitat (dense riparian foliage) for this subspecies. Also, there are no known records of this subspecies nesting in the BSA.

4.5.6. Light-footed Clapper Rail

The light-footed clapper rail (*Rallus longirostris levipes*) is a resident of dense coastal marsh vegetation consisting of cord grass and pickle weed in regions of southern California and northern Baja California. The amount of suitable habitat for this subspecies is about one-third of what was known to occur historically. A decline the subspecies population led to the endangered listing status by the CDFG Commission on 06/27/71 under the California Endangered Species Act of 1970. Species decline also prompted a federal listing of endangered under the Endangered Species Act of 1973, as amended effective 10/13/70.

4.5.6.1. Survey Results for Light-footed Clapper Rail

The specific habitat types required for this species (dense coastal marsh) does not occur within or adjacent to the project limits. No impacts to the species will result from the current proposed project alternatives. No further studies for this species are required. Contact was made with local birding experts Dave Compton and Karen Bridgers of the Santa Barbara Chapter of the Audubon Society. This contact was made in order to confirm the habitat assessment that was made for the light-footed clapper rail. Both individuals confirmed that the project area or areas adjacent did not represent nesting habitat for this species. There are no known records of this species nesting in the biological study area.

4.6. Migratory Birds and Wildlife in BSA/ADI

There are both permanent and temporary construction impacts to migratory birds and wildlife, caused by the disturbance and removal of portions of both aquatic and terrestrial habitat areas.

4.6.1. Impacts to Migratory Birds

Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal low is the Migratory Bird Treaty Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish and Game Code Section 3503, 3513 and 3800.

4.6.1.1. Survey Results for Migratory Birds

Migratory birds (including various passerine and raptor species) use both the ornamental and riparian vegetation within the project area and temporary impacts and loss of nesting habitat for 2-3 seasons are anticipated for migratory birds.

The eucalyptus trees adjacent to Carpinteria Creek have a history of use from a nesting pair of red-tailed hawks - they have used one of these trees for at least a few years. These eucalyptus trees are currently proposed for removal.

4.6.1.2. Avoidance and Minimization Efforts for Migratory Birds

The project will incorporate NSSP's (non-standard special provision) into the project PSE package to address specific protection measures for migratory birds before, during and after construction. The NSSP's will address the proper time for tree and vegetation removal to avoid nesting and raising young (remove vegetation Sept.1 – Feb 15). The NSSP's will require preconstruction surveys and the delineation on the plans and installation of ESA fencing in the field. The NSSP's will also recommend an appropriate buffer area (50-100 feet) to protect nesting migratory birds during construction.

4.6.1.3. Impacts to Migratory Birds

Due to the nesting fidelity behavior of paired red-tailed hawks (they reuse the same nest year after year), the removal of the nesting site for the red-tail hawks is considered a temporary impact because there appears to be an abundance of suitable habitat (large native trees suitable for nesting) up and down the Carpinteria Creek corridor.

Due to the removal of mature vegetation (native and non-native, there will be a temporary impact to all other migratory birds using this vegetation as nesting habitat. Due to the abundance of additional nesting habitat in the project vicinity, it is not anticipated that the project will cause harm or impact migratory species of birds.

Monitoring all migratory bird activity during construction is recommended.

4.6.1.4. Compensatory Mitigation for Migratory Birds

No additional compensatory mitigation is recommended at this time.

4.6.2. Impacts to Wildlife

4.6.2.1. Survey Results for Wildlife

Wildlife observed within the BSA include the following: raccoon (*Procyon lotor*), domestic cat (*Felis domestica*), ground squirrels *(Spermophyllus beechyi.*), feral house cat (*Felis catus*), opossum (*Didelphis virginiana*), lizards (*Scleroporus occidentalis*), crows (*Corvus brachyrhynchus*), red-tailed hawk (*Buteo jamaicensis)* and various passerine birds.

Birds were observed foraging and nesting in the shrubs and riparian willow thickets along the highway right-of-way at Carpinteria Creek. Signs of wildlife usage (footprints and scat) by raccoon, opossum and birds were evident at Carpinteria Creek.

Common aquatic species found within the BSA/ADI include tree frogs (*Hyla regilla)*, crayfish (*Procambarus clarkii*) and mosquito fish (*Gambusia affinis*) and various aquatic insects.

4.6.2.2. Avoidance and Minimization Efforts for Wildlife

Any development project that contributes to the removal of wildlife habitat (nesting foraging, dispersal or breeding habitat) through excavation, demolition, aquatic and vegetation removal activities can have cumulative effects on wildlife populations. For this reason, it is important to include avoidance, minimization and mitigation measures on all projects to reduce these impacts for all wildlife.

General Avoidance and Minimization Measures, such as the use of ESA fencing and exclusion will reduce excavation, grading and disturbance of natural habitat areas, which will minimize impacts to wildlife.

Additional avoidance and minimization measures for aquatic wildlife and habitat will be required for the temporary and permanent filling of CCC wetlands and "Other Waters of the U.S." in the Caltrans drainage ditches leading to Franklin Creek – see section on Wetlands and Waters impacts for further discussion.

4.6.2.3. Project Impacts for Wildlife

Wildlife living within the project area will be impacted by many of the construction activities. This includes excavation, demolition, the installation of new bridges, the filling and piping of aquatic habitat and all vegetation removal activities which will remove or effect foraging, nesting, dispersal or breeding habitat areas.

Because terrestrial wildlife usage of the project area is low (except at Carpinteria Creek, where habitat will be restored), and because there is surrounding habitat that is still available to them, it is anticipated that only temporary impacts to these individuals will occur.

Any aquatic wildlife living within Carpinteria Creek or the drainage ditches leading to Franklin Creek will be impacted by the project. Both temporary and permanent impacts will occur, due to the plans for filling the ditches and piping the waters underground, in order to build a soundwall and widen the highway. Over 60% of the wetland habitat will be permanently destroyed through filling the wetland/waters piping and transporting the waters that form this aquatic habitat into underground pipes. Sediment movement and erosion caused as a result of construction activities may also impact underwater foraging, breeding or dispersal habitat for the aquatic habitat that will remain.

4.6.2.4. Avoidance and Minimization Measures for Wildlife

Once the project is complete, all areas that are adjacent to the new bridge(s) may be replanted with native vegetation, and depending on soil/rock conditions, will once again be available for wildlife use. Protective BMP's (Best Management Practices) will be incorporated into the project design to avoid impacts to aquatic wildlife in all areas that remain intact within the Caltrans roadside drainage leading to Franklin Creek.

4.6.3. Compensatory Mitigation for Wildlife

Compensatory mitigation for terrestrial wildlife and habitat is not anticipated; the project incorporates revegetation in all areas with native plants as part of the wildlife avoidance and minimization efforts. These areas will provide future habitat to wildlife.

4.6.4. Cumulative Effects for Wildlife

All projects that take wildlife habitat away have a potential to cause cumulative effects on local wildlife populations, from the additional loss of breeding, nesting and foraging habitat.

4.7. Invasive Species in ADI

Invasive species, under Federal Executive Order 13112 (February 3, 1999), are defined as "any species", including seeds, eggs, spores or other biological material capable of propagating that species that is not native to that ecosystem whose introduction does or is likely to cause environmental harm or harm the human health. Invasive species can be plants or wildlife.

FHWA issued additional guidance on August 10, 1999 that directs use of the State's noxious weed list to define invasive plants that must be considered as part of the NEPA analysis for a proposed project. The California Invasive Plant Pest Council's "Invasive Plant Inventory List" was used to reference invasive plant species in the project ADI.

4.7.1. Survey Results for Invasive Species

Most of the project area has been altered by past highway and community development and most of the natural biological communities were removed years ago. Throughout the project area, exotic and invasive weeds and other assorted invasive plants described as exotic pest plants can be found.

Invasive vegetation within the biological study area includes the following species: tree tobacco (*Nicotiana glauca*), castor bean (*Ricinus communis*), rip gut brome (*Bromus diandrus*), giant reed (*Arundo donax*), garden nasturtium (*Tropaeolum majus*), ice plant (*Carpobrotus edulis*), German ivy (*Senecio mikanioides*), gum trees (*Eucalyptus sp.*), Mexican fan palm (*Washintonia robusta*) and edible fig (*Ficus carica*). Other invasive species include the bullfrog (*Rana catesbeiana*), opossum (*Didelphis virginiana*) and the feral house cat (*Felis catus*).

4.7.2. Avoidance and Minimization Efforts for Invasive Species

In order to assist with controlling the spread of invasive plants, weeds will be removed within the ADI and all remaining topsoil that is full of weed seeds will either be removed from the ADI or buried (due to the presence of a high quantity of weed seeds). Measures to control invasive exotic plants long term shall also be implemented.

After construction is complete, all soil surfaces remaining will be revegetated with native plants suitable for the area.

In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from Federal Highway Administration, landscaping and erosion control for the project will not revegetated the project area with species found on The California Invasive Plant Pest Council's "Invasive Plant Inventory List".

4.7.3. Project Impacts for Invasive Species

Removal of invasive species is considered a beneficial project impact; and it is the intent of Caltrans to remove and control the spread of invasive plants at every opportunity.

4.7.4. Compensatory Mitigation for Invasive Species

Compensatory mitigation is not proposed for invasive plant removal and control - it is part of the avoidance and minimization efforts for the project.

4.7.5. Cumulative Impacts for Invasive Species

All projects along Route 101, including this one (road improvements, maintenance activities and storm damage repairs and construction projects) can contribute to cumulative impacts. All Caltrans projects comply with invasive plant removal requirements, so in this case, cumulative impacts would provide a benefit to the natural environment.

4.7.6. Positive and Beneficial Biological Impacts of Removing Invasive Species

The positive benefits of this project include the removal of invasive plants and the revegetation with native plants wherever possible. Using native plants will help to improve wildlife habitat throughout the project area.

5. Laws, Regulatory Requirements, Permits and Technical Studies for Special Laws or Conditions

5.1. Clean Water Act (Sections 404 and 401), ACOE and RWQCB

Work to be done within Carpinteria Creek and the drainage ditch leading to Franklin Creek (Alternatives #1-4) and in Franklin Creek (Alternatives 1& 4) require compliance with Sections 401 and 404 of the Clean Water Act. The Regional Water Quality Control Board is the regulating agency in charge of compliance with Section 401 of the Clean Water Act. The U.S. Army Corps of Engineers (ACOE) is the regulating agency in charge of implementing compliance with Section 404 of the Clean Water Act.

A meeting with Susan DeSaddi of the ACOE took place on 12/11/02 at Carpinteria Creek. The Section 404 of the Clean Water Act permitting process was discussed and concluded that the project in 2002 would most likely fit under the Nationwide Permit #'s 14 Linear Transportation Projects, and #33 for Temporary Construction, Access, and Dewatering. Ms DeSaddi had said that further design detail would be needed in order to facilitate the final permit determination

A meeting with Lisa Schicker and Lara Bertaina of Caltrans, with Theresa Stevens of the Army Corps of Engineers (ACOE) took place on 8/27/08 at the project location to discuss the project and recent changes to the laws and changes to the project. The partial filling and piping of two drainage ditches leading to Franklin Creek were recently added to the project. The ditches appear to be fed by agricultural and residential runoff from the east side of the highway. Both ditches empty into large down-drain culverts, which then lead directly to a box culvert that empties into a channelized portion of Franklin Creek.

Further discussions between Caltrans permit coordinator Karen Bewley and Ms. Stevens (2010) have concluded that these drainage ditches are not ACOE jurisdictional wetland areas. Avoidance and minimization measures for impacts to waters of the U.S. loss include minimizing the construction work areas and construction work windows.

The current Carpinteria Creek bridge design detail has shown that some of the proposed bank stabilization features are now below the ordinary high water mark and would now call for the need of an Individual permit process as detailed in the 2007 Regional Conditions for the Los Angeles District of the ACOE.

Also, changes to wetlands policies including both formal and informal Jurisdictional Wetland Determinations and permitting requirements due to the Rapanos legal decision were also discussed. Ms. Stevens was unable to recommend a permit type and she recommended that Caltrans request a pre-application permit meeting with ACOE, once the preferred alternative has been selected.

5.2. Streambed Alteration Agreements and CDFG

A Streambed Alteration Agreement will be obtained from the CDFG for work to be done within and in the adjacent riparian zone of Carpinteria Creek and at drainage tributary to Franklin Creek (Soundwall B9) for all the build alternatives, in addition for any temporary work to be done in Franklin Creek for Alternatives #1 & #4. A meeting with Trudy Ingram of the CDFG took place on 11/20/02 at the project location. It was concluded that the project's riparian vegetation removal should be conducted between September 1st and March 1st in order to avoid affects to potentially nesting migratory birds. Replanting ratios for riparian vegetation impacts would be 3:1. The CDFG also agreed that the overall, the proposed project changes at Carpinteria Creek would benefit steelhead trout.

5.3. Federal Endangered Species Act Consultations - USFWS and NOAFF

Following the selection of a final preferred project alternative, a Biological Assessment will be submitted to the USFWS initiating formal consultation under Section 7 of the Endangered Species Act.

Caltrans will request to enter formal consultation with the USFWS as a result of potential incidental take of tidewater gobies for proposed work in and adjacent to Carpinteria Creek. Incidental take could be a result of harassment, harm, or mortality of tidewater gobies during water diversion, demolition, construction, or relocation actions if they become necessary.

Caltrans will request to enter formal consultation for Franklin Creek under Section 7 of the Endangered Species Act from the USFWS if Alternatives #1 or 4 are selected as the preferred alternative.

Following the selection of the preferred alternative, a Biological Assessment will be submitted to the NOAAF via the FHWA, initiating formal consultation under Section 7 of the Endangered Species Act as a result of potential incidental take of steelhead on Carpinteria Creek. The overall project will likely benefit steelhead trout with the removal of the existing migration impediment on Carpinteria Creek.

5.4. Federal Migratory Bird Act

Federal and State laws protect migratory birds, their occupied nests, and their eggs from destruction. The applicable Federal low is the Migratory Bird Treaty Act (15 USC 703-711), 50 CFR Part 21, and 50 CFR Part 10. Protection under California Law is found in the Fish and Game Code Section 3503, 3513 and 3800. Migratory birds use both the ornamental and riparian vegetation within the project area and temporary impacts and loss of nesting habitat for 2-3 seasons are anticipated for migratory birds. NSSP's will be incorporated into the project PSE package to address migratory birds before, during and after construction.

5.5. California Endangered Species Act Consultation and CDFG

The project alternatives as proposed will have no effect and is not likely to jeopardize the continued existence of any State listed threatened or endangered species. Formal consultation or a take application (under Section 2080.1 or 2081 (b) CDFG code) with the CDFG under the California Endangered Species Act will not be required for this project as currently proposed.

5.6. Coastal Development Permit and Local Coastal Plan – City of Carpinteria and the CA Coastal Commission

The project area is within the coastal zone and will require a coastal development permit from the City of Carpinteria. The City of Carpinteria administers the local coastal plan (LCP) on behalf of the Coastal Commission for this project. The City of Carpinteria's April 2003 General Plan/ Local Coastal Plan & Environmental Impact Report (LCP) calls out specific parameters in the chapter entitled Open Space, Recreation, & Conservation Element.

Avoidance, minimization and compensatory mitigation will be required for the permanent and temporary impacts to Coastal Commission defined wetlands in Carpinteria Creek and in the drainage tributaries leading to Franklin Creek. There is a federal and state "no-net-loss" policy on wetlands; therefore it is recommended that additional wetlands be created at 3:1 replacement ratio. An alternative compensatory mitigation strategy could be for Caltrans to provide a financial contribution (through a cooperative agreement) to fund local agency efforts to restore and enhance Franklin Creek and Carpinteria Marsh.

In the "Native Plant Communities" section of the LCP, native plant communities including oak trees and oak woodlands are called out as needing special attention and "…shall be protected through appropriate development standards". The project alternatives as proposed have been developed in

such a manner as to minimize impacts to native oak trees. The PDT concluded that each project alternative would include the avoidance of the existing stand of oak trees with the extension of the Via Real Alignment at the southern end of the project. The realignment of Via Real extension from the original project alternatives allowed for the avoidance of removing 16 out of the 18 oaks within the stand. Only two oaks would be removed from the existing stand. Refer to section 4.2.4 Discussion of Oak Woodlands of this document for detailed discussions about oaks within the project limits, survey results, project impacts, compensatory mitigation, and cumulative impacts.

The City of Carpinteria LCP identifies Franklin and Carpinteria Creeks as Environmentally Sensitive Habitat Areas (ESHA). Policies in relation to potentially affected ESHA include the following:

The LCP states in Objective OSC-6c that "When alterations to creeks are permitted by the Coastal Act and policies herein, the creek shall be protected by only allowing creek bank and creek bed alterations where no practical alternative solution is available, where the best mitigation measures feasible have been incorporated, and where any necessary State and Federal permits have been issued". The four build alternatives for this project incorporate the best mitigation measures feasible and all required State and Federal permits and agreements shall be obtained and implemented prior to or throughout and following construction.

The LCP states in Objective OSC-6d "Carry out and maintain all permitted construction and grading within stream corridors in such a manner so as to minimize impacts on biological resources and water quality such a runoff, creek bank erosion, sedimentation." The "build" alternatives have avoidance and minimization measures incorporated into them in order to avoid and minimize impacts on biological resources. For each project alternative, Caltrans best management practices will be adhered to as detailed in the project's "Storm Water Pollution Prevention Plan". For specific minimization measures in relation to water quality and dewatering/water diversion for specific biological resources, refer to section 4.2.3 Jurisdictional Waters, section 4.4.1 steelhead trout, and section 4.4.2 tidewater goby.

LCP Implementation Policy #29 states "Limit all development within stream corridors, including dredging, filling, and grading to activities necessary for construction…. When such activities require the removal of riparian plant species, re-vegetation with local native plants shall be required." Refer to Section 4.2.1, "Discussion of the Riparian Habitat Natural Community" found in this document for details about the re-vegetation plan.

5.7. Carpinteria Creeks Preservation Program (CCP)

A component of the Carpinteria LCP is the "Creeks Preservation Program" (CCP, 2005). The CCP includes a wide range of enhancements and protective measures for the creeks in the Carpinteria

area, including Carpinteria, Franklin and Santa Monica Creeks. A portion of the CCP Plan discusses restoration of Franklin Creek. The proposed Franklin Creek restoration includes the complete removal of the concrete lining of the channel and establishment of a narrow riparian corridor. The challenges involved in completing this restoration project include acquiring funds to complete a required engineering feasibility study, and obtaining the right-of way needed to restore the creek and riparian corridor, which currently contains numerous houses and other buildings. This restoration plan has potential to substantially improve Franklin Creek's water quality, ecological diversity and richness, visual characteristics, recreational opportunities, and the wildlife corridor.

The project development team (PDT) decided to not consider the restoration of Franklin Creek as part of this project. This decision affects Alternatives 1 and 4. The PDT position is that the Franklin Creek restoration proposal cannot be considered until an engineering feasibility study is prepared. The Carpinteria City Manager (2008) has indicated that funding for the feasibility study is not available in the current City budget, but may be funded in the future.

6. References

Bridgers, K. November 2002, Potential Sensitive Bird Species Records, Santa Barbara Chapter of the Audubon Society.805-893-4098

California Department of Fish and Game. September 2003, California Natural Diversity Database Rare Find Version 3.0.2

California Department of Fish and Game. 1995, Fish Species of Special Concern in California, Tidewater Goby

California Department of Fish and Game. 1995, Fish Species of Special Concern in California, Southern Steelhead

California Department of Fish and Game, 1996. Steelhead Restoration Management Plan.

California Department of Fish and Game.2000, The Status of Rare, Threatened, and Endangered Animals and Plants in California, Least Bell's Vireo.

California Department of Fish and Game.2000, The Status of Rare, Threatened, and Endangered Animals and Plants in California, Light footed Clapper Rail.

Caltrans, Carpinteria Operational Improvements Water Quality Technical Report, Arkfeld July 2008.

City of Carpinteria. 1980. City of Carpinteria Local Coastal Plan. Carpinteria, California.

City of Carpinteria. 2005. City of Carpinteria - Creeks Preservation Plan. Carpinteria, California.

Compton, D. November 2002, Potential Sensitive Bird Species Records, Santa Barbara Chapter of the Audubon Society. 805-965-3253

Hickman, J.C., editor. 1993. The Jepson Manual Higher Plants of California. University of California Press.

Jennings, M.R., M.P. Hayes and D.C. Holland. 1992. A petition to the USFWS to Place the California red-legged frog and the western pond turtle on the list of endangered and threatened wildlife and plants.

Lehman, P.E. 1994. The Birds of Santa Barbara County, California. Vertebrate Museum University of California Santa Barbara.

National Oceanic and Atmospheric Administration.1998 Federal Register (Volume 63 #16), Listing of Several Evolutionarily Significant Units of West Coast Steelhead.

National Oceanic and Atmospheric Administration.1997 Status Review Update for West Coast Steelhead from Washington, Idaho, Oregon, and California.

National Geographic Society. 1999. Field Guide to the Birds of North America. Third edition. National Geographic Society, Washington, D.C., USA.

SB County Flood Control District. 2002/2003 Annual Maintenance Plan Summaries.

Scott, N.J. September 2000 California Red-Legged Frog Workshop. Piedras Blancas Lighthouse, San Simeon, California.

Scott, N.J., G.B. Rathbun. 2001. Biology of the aquatic vertebrates of coastal San Luis Obispo County, California. U.S. Geological Survey, San Simeon, California

Smith, C.F. 1998. A Flora of the Santa Barbara County Region, California. Second Edition. Santa Barbara, California.

Stebbins, R.C. 1985 Western reptiles and amphibians, Houghton Mifflin, New York, New York, USA.

Stoecker, M., and the Conception Coast Project, June 2002. Steelhead Assessment and Recovery Opportunities in Southern Santa Barbara County, California.

Tibor, D.P., editor. 2001 California Native Plant Society's inventory of rare and endangered plants of California. California Native Plant Society, Sacramento, California, USA.

U.S. Department of Agriculture Soil Conservation Service and Forest Service in cooperation with University of California Agriculture Experiment Station. 1981. Soil Survey of Santa Barbara County, California South Coastal Part.

U.S. Fish and Wildlife Service. 1997. Guidance on the Site Assessment and Field Surveys for California Red-legged Frogs.

U.S. Fish and Wildlife Service. 2005. Revised Guidance on site assessments and filed surveys for the California Red-legged Frog.

U.S. Fish and Wildlife Service. 1995. Species Account, Southwestern Willow Flycatcher.

U.S. Fish and Wildlife Service. 2000. Species Account, Tidewater Goby

U.S. Fish and Wildlife Service.1999. Species Account, Western Snowy Plover.

U.S. Fish and Wildlife Service.2001. Western Snowy Plover Pacific Coast Population Draft Recovery Plan. Portland, Oregon

Wetland Training Institute, Inc. 1999. Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual. Glenwood, New Mexico.

Wetland Regulatory Assistance Program, U.S. Army Corps of Engineers 2006. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

List of Contacts:

Theresa Stevens, ACOE with Karen Bewley, Caltrans permit coordinator – Spring 2010 – ongoing discussions regarding project impacts to jurisdictional wetlands and permit issues

Theresa Stevens, ACOE with Lisa Schicker and Lara Bertaina, August 2008 - discussed project impacts to jurisdictional wetlands and required permits.

Betty Songer and Bob Hansen, Carpinteria Watershed Coalition, with Lisa Schicker and Bill Arkfeld, August 2008 – discussed wetland and riparian impacts to Franklin and Carpinteria Creeks

Bridget Fahey and Katie Drexhage, USFWS with Mitch Dallas, 2002 – Discussed Section 7 consultation, Special Status Species and Project Impacts

Susan DeSaddi ACOE with Mitch Dallas, 2002 – discussed project impacts to jurisdictional wetlands and required permits.

Trudy Ingram, CDFG with Mitch Dallas, 2002 - Discussed Special Status Species and Project Impacts

Stan Glowacki, NOAAF with Mitch Dallas, 2002 - Discussed Section 7 Consultation, Special Status Species and Project Impacts

Dave Compton and Karen Bridgers of the Santa Barbara Chapter of the Audubon Society with Mitch Dallas, 2002 Discussed local bird populations, including special status species.

Kari Bhana, current Project Design Engineer, and PDT members, personal communication 2002-2008.

Websites:

http://www.fws.gov/ventura/esprograms/listing_ch/spplists/species_sba.cfm updated USFWS species list for Santa Barbara County July 2008

http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm#q9 CNPS Inventory July 2008

http://www.carpinteria.ca.us/PDFs/cd_creeks%20report.pdf Carpinteria Creeks Preservation Program 2005.

http://www.ci.carpinteria.ca.us/PDFs/cd_Cumulative%20Projects.pdf Cumulative Impacts May, City of Carpinteria July 2008.

http://209.85.141.104/search?q=cache:LgFO4CjK4eQJ:swr.nmfs.noaa.gov/hcd/soCalDistrib.htm+franklin+creek+and+steelhead&hl=en&ct=clnk&cd=14&gl=us NMFS California Anadromous Fish Distributions (*Southern Steelhead- Santa Maria River to Malibu Creek)* -**C**urrent Stream Habitat Distribution Table

http://209.85.215.104/search?q=cache:Ilt_lUhW4K0J:www.countyofsb.org/pwd/water/annual_plan.htm+Santa+Barbara+County+Flood+Control+District+Annual+Maintenance+Plan&hl=en&ct=clnk&cd=1&gl=us Santa Barbara County Flood Control District Annual Maintenance Plan 2008-2009, updated yearly since 1992.

http://swr.nmfs.noaa.gov/hcd/soCalHistoric.htm NMFS California Anadromous Fish Historical Distributions

http://www.nwr.noaa.gov/Publications/FR-Notices/2005/loader.cfm?url=/commonspot/security/getfile.cfm&pageid=33713 September 2, 2005 Steelhead critical habitat information and maps

List of Preparers:

Lisa Schicker, Caltrans Biologist/Arborist: BA Biology, MLA Landscape Architecture/ Environmental Management; 25+ years experience in Environmental Planning/Biological Studies. Project scoping, wetlands determinations for Soundwall Location B9, final NES, mapping and BA preparation.

Ed Schefter, Caltrans GIS Specialist/ Licensed Land Surveyor: BS Surveying & Photogrammetry, California State University Fresno. Licensed Land Surveyor with 20+ years experience in surveying and mapping. GPS delineation and GIS mapping.

Mitch Dallas 2002-2007 Caltrans Biologist; BA Natural Resources Management, 8+ years experience in Environmental and Biological Studies. Project Field work, wetlands determinations for Carpinteria Creek area and draft NES.

Virginia Strohl - Caltrans Biologist; BA Biology, 10+ years experience in Environmental and Biological Studies. NES Peer Review July and September 2008.

Appendix A: Aerial Maps: Biological Study Area and Area of Direct Impact

Biological Study Area (BSA) and Area of Direct Impact (ADI) – Aerial Map

Project Alternatives #1- #4 – Aerial Map

T:\sb\05-4482u\gis\gisproj\Noise\Alts1_4_r06252008.mxd
to Santa Barbara
SP Railroad
Carpinteria Ave
101
Franklin Crk
Nipomo Dr
End Project
PM 3.4
Carpinteria Marsh
Santa Monica Crk
Holly Ave
Linden Ave
Ogan Rd
Casitas Pass Rd
Vallecito Rd
City of Carpinteria
Carpinteria Ave
Carpinteria Crk
SP Railroad
Begin Project
PM 2.2
Via Real
101
Biological Study Area (BSA)
LINDEN AVENUE AND CASITAS PASS
ROAD INTERCHANGES PROJECT
SB-101-PM 2.2/3.4, EA 05-4482U
Biological Study Area (BSA)
Area of Direct Impact (ADI)
N
0 250 500 1,000
Feet
T:\sb\05-4482u\gis\gisproj\bio\nes_bsa (08/19/2008)

End Project
PM 3.4
101
Franklin Crk
Holly Ave
Linden Ave
Vallecito Rd
Ogan Rd
Casitas Pass Rd
Carpinteria Crk
Carpinteria Ave
City of Carpinteria
SP Railroad
Via Real
101
Begin Project
PM 2.2
Project Alternatives # 1-4
LINDEN AVENUE AND CASITAS PASS
ROAD INTERCHANGES PROJECT
SB-101-PM 2.2/3.4, EA 05-4482U
N
Biological Study Area
Alternatives 1 and 4
Alternatives 2 and 3
0
250
500
1,000
Feet
T:\sb\05-4482u\gis\gisproj\bio\nes_4alts (08/19/2008)

Appendix B: USFWS Endangered, Threatened, and Proposed Species List

http://www.fws.gov/ventura/esprograms/listing_ch/spplists/species_sba.cfm

Last Update of List: July 2008

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

Listed, Proposed, And Candidate Species Which May Occur in Santa Barbara County
(52 Species)

Type	Common Name	Scientific Name	Status	Date Listed	CH	CH Date
Amphibian	ARROYO TOAD	Bufo microscaphus californicus	Endangered	16-Dec-94	Yes	13-Apr-05
Amphibian	CALIFORNIA RED-LEGGED FROG	Rana aurora draytonii	Threatened	23-May-96	Yes	13-Apr-06
Amphibian	CALIFORNIA TIGER SALAMANDER (SANTA BARBARA CO.)	Ambystoma californiense	Endangered	21-Sep-00	Yes	23-Aug-05
Bird	BALD EAGLE	Haliaeetus leucocephalus	Threatened	11-Mar-67	No	
Bird	BROWN PELICAN	Pelicanus occidentalis	Endangered	02-Jun-	No	

				70		
Bird	CALIFORNIA CONDOR	Gymnogyps californianus	Endangered	11-Mar-67	Yes	22-Sep-77
Bird	CALIFORNIA LEAST TERN	Sterna antillarum browni	Endangered	02-Jun-70	No	
Bird	LEAST BELL'S VIREO	Vireo bellii pusillus	Endangered	02-May-86	Yes	02-Feb-94
Bird	LIGHT-FOOTED CLAPPER RAIL	Rallus longirostris levipes	Endangered	13-Oct-70	No	
Bird	MARBLED MURRELET	Brachyramphus marmoratus marmoratus	Threatened	10-Oct-92	No	
Bird	SOUTHWESTERN WILLOW FLYCATCHER	Empidonax trallii extimus	Endangered	27-Feb-95	Yes	22-Jul-97
Bird	WESTERN SNOWY PLOVER	Charadrius alexandrinus nivosus	Threatened	05-Mar-93	Proposed	
Bird	YELLOW-BILLED CUCKOO	Coccyzus americanus	Candidate	25-Jul-01	No	
Fish	SOUTHERN CALIFORNIA STEELHEAD	Oncorhynchus mykiss	Endangered	17-Jun-98	Proposed	
Fish	TIDEWATER GOBY	Eucyclogobius newberryi	Endangered	07-Mar-94	No	
Fish	UNARMORED THREESPINE STICKLEBACK	Gasterosteus aculeatus williamsoni	Endangered	13-Oct-70	No	
Invertebrate	LONGHORN FAIRY SHRIMP	Branchinecta longiantenna	Endangered	19-Sep-94	Yes	10-Feb-06
Invertebrate	VERNAL POOL FAIRY SHRIMP	Branchinecta lynchi	Threatened	19-Sep-94	Yes	10-Feb-06
Mammal	GIANT KANGAROO RAT	Dipodomys ingens	Endangered	05-Jan-87	No	

Mammal	SAN JOAQUIN KIT FOX	Vulpes macrotis mutica	Endangered	11-Mar-67	No	
Mammal	SAN MIGUEL ISLAND FOX	Urocyon littoralis littoralis	Endangered	05-Mar-04	No	
Mammal	SANTA CATALINA ISLAND FOX	Urocyon littoralis catalinae	Endangered	05-Mar-04	No	
Mammal	SANTA CRUZ ISLAND FOX	Urocyon littoralis santacruzae	Endangered	05-Mar-04	No	
Mammal	SANTA ROSA ISLAND FOX	Urocyon littoralis santarosae	Endangered	05-Mar-04	No	
Mammal	SOUTHERN SEA OTTER	Enhydra lutris nereis	Threatened	14-Jan-77	No	
Plant	BEACH LAYIA	Layia carnosa	Endangered	22-Jun-92	No	
Plant	CALIFORNIA JEWELFLOWER	Caulanthus californicus	Endangered	19-Jul-90	No	
Plant	CALIFORNIA ORCUTT GRASS	Orcuttia californica	Endangered	03-Aug-93	No	
Plant	CONTRA COSTA GOLDFIELDS	Lasthenia conjugens	Endangered	22-Jun-92	Yes	06-Aug-03
Plant	GAMBEL'S WATERCRESS	Rorippa gambellii	Endangered	03-Aug-93	No	
Plant	GAVIOTA TARPLANT	Hemizonia increscens ssp. villosa	Endangered	20-Mar-00	Yes	07-Nov-02
Plant	HOFFMANN'S ROCK-CRESS	Arabis hoffmannii	Endangered	31-Jul-97	No	
Plant	HOFFMAN'S SLENDER-FLOWERED GILIA	Gilia tenuiflora ssp. hoffmannii	Endangered	31-Jul-97	No	
Plant	ISLAND BARBERRY	Berberis pinnata ssp. insularis	Endangered	31-Jul-97	No	

Plant	ISLAND BEDSTRAW	Galium buxifolium	Endangered	31-Jul-97	No	
Plant	ISLAND MALACOTHRIX	Malacothrix squalida	Endangered	31-Jul-97	No	
Plant	ISLAND PHACELIA	Phacelia insularis ssp. insularis	Threatened	31-Jul-97	No	
Plant	ISLAND RUSH-ROSE	Helianthemum greenei	Threatened	31-Jul-97	No	
Plant	LA GRACIOSA THISTLE	Cirsium loncholepis	Endangered	20-Mar-00	Yes	17-Mar-04
Plant	LOMPOC YERBA SANTA	Eriodictyon capitatum	Endangered	20-Mar-00	Yes	07-Nov-02
Plant	PARISH'S CHECKERBLOOM	Sidalcea hickmanii ssp. parishii	Candidate	28-Feb-96	No	
Plant	SALT MARSH BIRD'S-BEAK	Cordylanthus maritimus ssp. maritimus	Endangered	28-Sep-78	No	
Plant	SAN JOAQUIN WOOLY-THREADS	Lembertia congdonii	Endangered	19-Jul-90	No	
Plant	SANTA BARBARA ISLAND LIVEFOREVER	Dudleya traskiae	Endangered	26-Apr-78	No	
Plant	SANTA CRUZ ISLAND BUSH-MALLOW	Malacothamnus fasciculatis var. nesioticus	Endangered	31-Jul-97	No	
Plant	SANTA CRUZ ISLAND DUDLEYA	Dudleya nesiotica	Threatened	31-Jul-97	No	
Plant	SANTA CRUZ ISLAND FRINGEPOD	Thysanocarpus conchuliferus	Endangered	31-Jul-97	No	
Plant	SANTA CRUZ ISLAND MALACOTHRIX	Malacothrix indecora	Endangered	31-Jul-97	No	
Plant	SANTA ROSA ISLAND MANZANITA	Arctostaphylos confertiflora	Endangered	31-Jul-97	No	

Plant	SOFT-LEAVED PAINTBRUSH	Castilleja mollis	Endangered	31-Jul-97	No
Reptile	BLUNT-NOSED LEOPARD LIZARD	Gambelia silus	Endangered	11-Mar-67	No
Reptile	ISLAND NIGHT LIZARD	Xantusia (=Klauberina) riversiana	Threatened	11-Aug-77	No

DISCLAIMER NOTICE
The information provided on this page should not be considered an OFFICIAL species list. If you have a proposed project and are in need of an official species list, please mail a detailed request to the address listed at the top of the page.

NOTE: This project was officially discussed onsite with a USFWS representative in 2002, who suggested to use this list for project updates. (Dallas, Caltrans with Fahey, USFWS in 2002 - note prepared by lks July 10, 2008)

Appendix C: CDFG California Natural Diversity Database (CNDDB) and CNPS Species Lists

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	***Accipiter cooperii*** Cooper's hawk	ABNKC12040			G5	S3	
2	***Actinemys marmorata pallida*** Southwestern pond turtle	ARAAD02032			G3G4T2T3Q	S2	SC
3	***Astragalus pycnostachyus var. lanosissimus*** Ventura Marsh milk vetch	PDFAB0F7B1	Endangered	Endangered	G2T1	S1.1	1B.1
4	***Atriplex coulteri*** Coulter's saltbush	PDCHE040E0			G2	S2.2	1B.2
5	***Atriplex serenana var. davidsonii*** Davidson's saltscale	PDCHE041T1			G5T2?	S2?	1B.2
6	***Bufo californicus*** Arroyo toad	AAABB01230	Endangered		G2G3	S2S3	SC
7	***Calochortus weedii var. vestus*** Late-flowered mariposa lily	PMLIL0D1J2			G3G4T2	S2.2	1B.2
8	***Calystegia sepium ssp. binghamiae*** Santa Barbara morning glory	PDCON040E6			G5TH	SH	1A
9	***Centromadia parryi ssp. australis*** Southern tarplant	PDAST4R0P4			G4T2	S2.1	1B.1
10	***Charadrius alexandrinus nivosus*** Western snowy plover	ABNNB03031	Threatened		G4T3	S2	SC
11	***Chorizanthe polygonoides var. longispina*** Long-spined spineflower	PDPGN040K1			G5T3	S2.2	1B.2
12	***Cicindela hirticollis gravida*** Sandy beach tiger beetle	IICOL02101			G5T2	S1	
13	***Coelus globosus*** Globose dune beetle	IICOL4A010			G1	S1	
14	***Cordylanthus maritimus ssp. maritimus*** Salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T2	S2.1	1B.2
15	***Danaus plexippus*** Monarch butterfly	IILEPP2010			G5	S3	
16	***Delphinium umbraculorum*** Umbrella larkspur	PDRAN0B1W0			G2G3	S2S3.3	1B.3
17	***Empidonax traillii extimus*** Southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T1T2	S1	
18	***Eucyclogobius newberryi*** Tidewater goby	AFCQN04010	Endangered		G3	S2S3	SC
19	***Fritillaria ojaiensis*** Ojai fritillary	PMLIL0V0N0			G1	S1.2	1B.2
20	***Gymnogyps californianus*** California condor	ABNKA03010	Endangered	Endangered	G1	S1	
21	***Horkelia cuneata ssp. puberula*** Mesa horkelia	PDROS0W045			G4T2	S2.1	1B.1
22	***Lasthenia glabrata ssp. coulteri*** Coulter's goldfields	PDAST5L0A1			G4T3	S2.1	1B.1

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
23	***Lonicera subspicata var. subspicata*** Santa Barbara honeysuckle	PDCPR030R3			G5T2	S2.2	1B.2
24	***Malacothrix saxatilis var. arachnoidea*** Carmel Valley malacothrix	PDAST660C2			G5T2	S2.2	1B.2
25	***Neotoma lepida intermedia*** San Diego desert woodrat	AMAFF08041			G5T3?	S3?	SC
26	***Nolina cismontana*** Peninsular nolina	PMAGA080E0			G1	S1.1	1B.2
27	***Nyctinomops macrotis*** Big free-tailed bat	AMACD04020			G5	S2	SC
28	***Oncorhynchus mykiss irideus*** Southern steelhead - southern California ESU	AFCHA0209J	Endangered		G5T2Q	S2	SC
29	***Passerculus sandwichensis beldingi*** Belding's savannah sparrow	ABPBX99015		Endangered	G5T3	S3	
30	***Quercus dumosa*** Nuttall's scrub oak	PDFAG050D0			G1G2	S1.1	1B.1
31	***Rallus longirostris levipes*** Light-footed clapper rail	ABNME05014	Endangered	Endangered	G5T1T2	S1	
32	***Rana draytonii*** California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
33	***Riparia riparia*** Bank swallow	ABPAU08010		Threatened	G5	S2S3	
34	***Southern Coastal Salt Marsh***	CTT52120CA			G2	S2.1	
35	***Streptanthus campestris*** Southern jewel-flower	PDBRA2G0B0			G2	S2.3	1B.3
36	***Thamnophis hammondii*** Two-striped garter snake	ARADB36160			G3	S2	SC
37	***Thelypteris puberula var. sonorensis*** Sonoran maiden fern	PPTHE05192			G5T3	S2.2?	2.2
38	***Thermopsis macrophylla*** Santa Ynez false lupine	PDFAB3Z0E0		Rare	G1	S1.3	1B.3
39	***Vireo bellii pusillus*** Least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

CNPS Rare Plants Inventory

Last Update: July 2008 – 9 Quad Search, **Carpinteria (142A) 3411945, Little Pine Mountain (167C) 3411956, Hildreth Peak (167D) 3411955, White Ledge Peak (141B) 3411944,**

SCINAME	COM_NAME	LIFE_FORM	CNPS	STATI	FED_S	NATCOMS	BLOOMING
Astragalus pycnostachyus var. lanosissimus	Ventura marsh milk-vetch	perennial herb	1B.1	Endan	Endang	Coastal dunes, Coastal scrub, Marshes and swamps(edges, coa	Jun-Octandnbsp;andnbsp; <SI
Atriplex coulteri	Coulter's saltbush	perennial herb	1B.2			Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and fo	Mar-Octandnbsp;andnbsp; <SI
Atriplex serenana var. davidsonii	Davidson's saltscale	annual herb	1B.2			Coastal bluff scrub, Coastal scrub/alkaline	Apr-Octandnbsp;andnbsp; <SI
Calochortus weedii var. vestus	late-flowered mariposa lily	perennial bulbiferous herb	1B.2			Chaparral, Cismontane woodland, Riparian woodland/often serp	Jun-Augandnbsp;andnbsp; <S
Calystegia sepium ssp. binghamiae	Santa Barbara morning-glory	perennial rhizomatous herb	1A			Marshes and swamps(coastal)	Apr-Mayandnbsp;andnbsp; <S
Centromadia parryi ssp. australis	southern tarplant	annual herb	1B.1			Marshes and swamps(margins), Valley and foothill grassland(ve	May-Novandnbsp;andnbsp; <S
Chorizanthe polygonoides var. longispina	long-spined spineflower	annual herb	1B.2			Chaparral, Coastal scrub, Meadows and seeps, Valley and foot	Apr-Julandnbsp;andnbsp; <SM
Cordylanthus maritimus ssp. maritimus	salt marsh bird's-beak	annual herb hemiparasitic	1B.2	Endan	Endang	Coastal dunes, Marshes and swamps(coastal salt)	May-Octandnbsp;andnbsp; <S
Delphinium umbraculorum	umbrella larkspur	perennial herb	1B.3			Cismontane woodland	Apr-Junandnbsp;andnbsp; <SI
Fritillaria ojaiensis	Ojai fritillary	perennial bulbiferous herb	1B.2			Broadleafed upland forest(mesic), Chaparral, Lower montane co	Feb-Mayandnbsp;andnbsp; <S
Hordeum intercedens	vernal barley	annual herb	3.2			Coastal dunes, Coastal scrub, Valley and foothill grassland(salir	Mar-Junandnbsp;andnbsp; <S
Horkelia cuneata ssp. puberula	mesa horkelia	perennial herb	1B.1			Chaparral(maritime), Cismontane woodland, Coastal scrub/sand	Feb-Jul(Sep)andnbsp;andnbsp
Lasthenia conjugens	Contra Costa goldfields	annual herb	1B.1		Endang	Cismontane woodland, Playas(alkaline), Valley and foothill grass	Mar-Junandnbsp;andnbsp; <S
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	annual herb	1B.1			Marshes and swamps(coastal salt), Playas, Vernal pools	Feb-Junandnbsp;andnbsp; <S
Lonicera subspicata var. subspicata	Santa Barbara honeysuckle	perennial evergreen shrub	1B.2			Chaparral, Cismontane woodland, Coastal scrub	May-Aug(Dec-Feb)andnbsp;ar
Malacothrix saxatilis var. arachnoidea	Carmel Valley malacothrix	perennial rhizomatous herb	1B.2			Chaparral(rocky), Coastal scrub	(Mar)Jun-Decandnbsp;andnbs
Monolopia congdonii	San Joaquin woollythreads	annual herb	1B.2		Endang	Chenopod scrub, Valley and foothill grassland(sandy)	Feb-Mayandnbsp;andnbsp; <S
Nolina cismontana	chaparral nolina	perennial evergreen shrub	1B.2			Chaparral, Coastal scrub/sandstone or gabbro	May-Julandnbsp;andnbsp; <SI
Pseudognaphalium leucocephalum	white rabbit-tobacco	perennial herb	2.2			Chaparral, Cismontane woodland, Coastal scrub, Riparian wood	(Jul)Aug-Nov(Dec)andnbsp;an
Quercus dumosa	Nuttall's scrub oak	perennial evergreen shrub	1B.1			Closed-cone coniferous forest, Chaparral, Coastal scrub/sandy,	Feb-Aprandnbsp;andnbsp; <SI
Ribes amarum var. hoffmannii	Hoffmann's bitter gooseberry	perennial deciduous shrub	3			Chaparral, Riparian woodland	Mar-Aprandnbsp;andnbsp; <SI
Streptanthus campestris	southern jewel-flower	perennial herb	1B.3			Chaparral, Lower montane coniferous forest, Pinyon and juniper	May-Julandnbsp;andnbsp; <SI
Thelypteris puberula var. sonorensis	Sonoran maiden fern	perennial rhizomatous herb	2.2			Meadows and seeps(seeps and streams)	Jan-Sepandnbsp;andnbsp; <S
Thermopsis macrophylla	Santa Ynez false lupine	perennial rhizomatous herb	1B.3	Rare		Chaparral(sandy, granitic, disturbed areas)	Apr-Junandnbsp;andnbsp; <SI

Appendix D: Wetlands and "Other Waters"

Wetland ID Maps and Wetland Data Sheets

D – Location Map

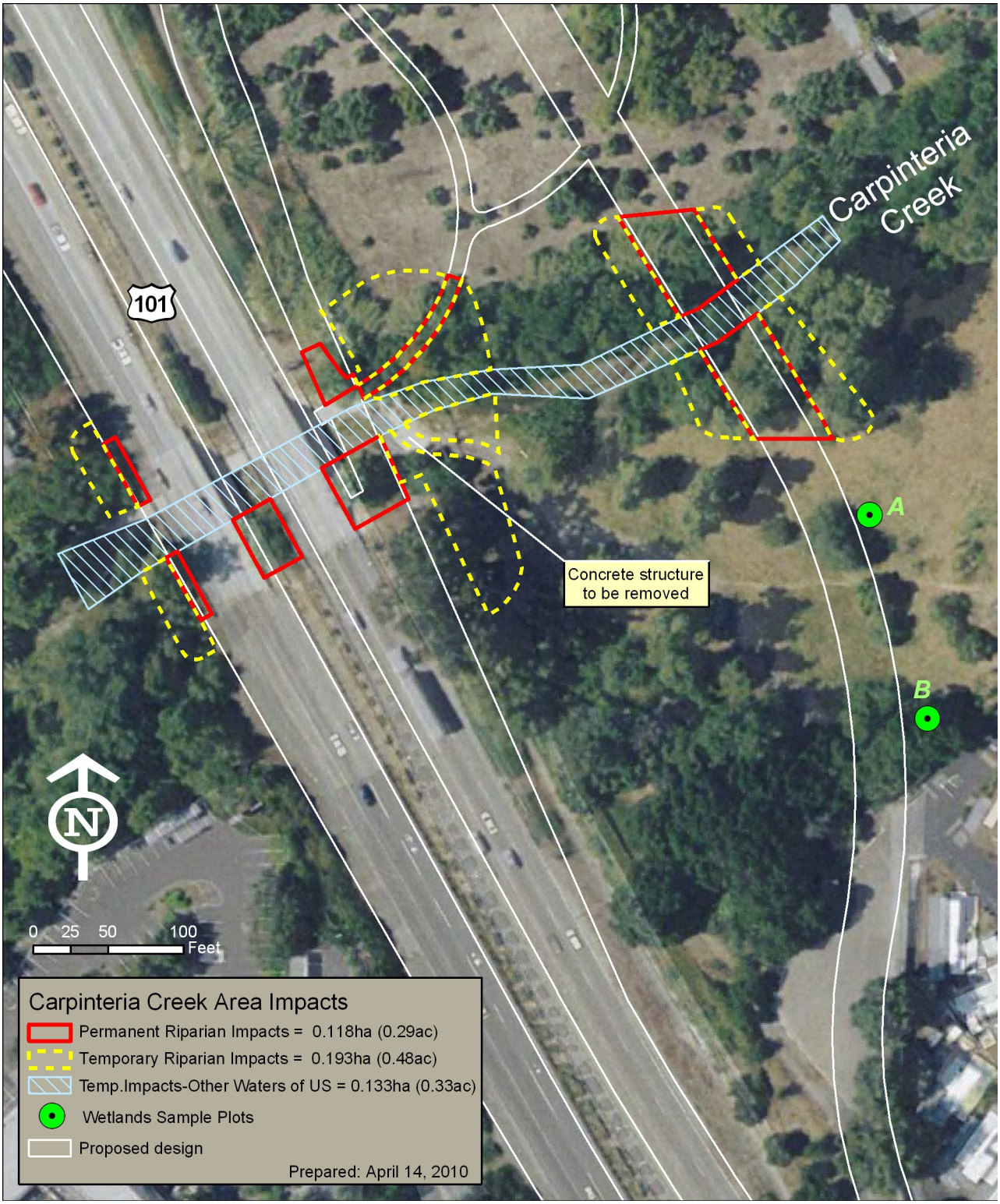
D1 – Roadside Ditch Leading to Franklin Creek - southbound

D2 – Carpinteria Creek Area

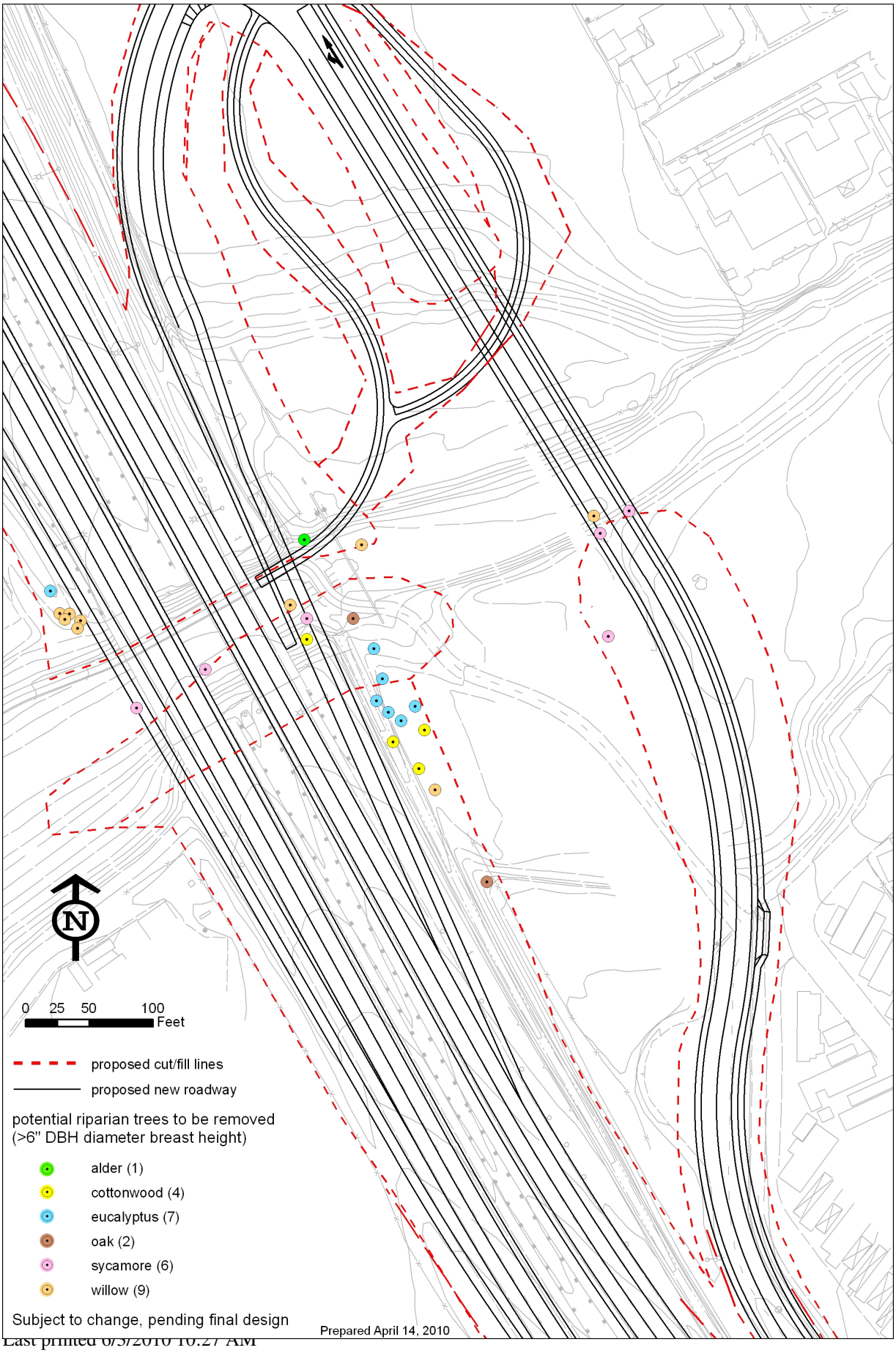
Wetland Data Sheets A-C (6 pages)

Appendix D
to Santa Barbara
SP Railroad
Carpinteria Ave
101
Franklin Crk
Nipomo Dr
End Project
PM 3.4
Carpinteria Marsh
Santa Monica Crk
Holly Ave
see Appendix D1
Linden Ave
Vallecito Rd
Ogan Rd
Casitas Pass Rd
City of Carpinteria
Carpinteria Ave
SP Railroad
Carpinteria Crk
Begin Project
PM 2.2
Via Real
101
see Appendix D2
Biological Study Area (BSA)
LINDEN AVENUE AND CASITAS PASS
ROAD INTERCHANGES PROJECT
SB-101-PM 2.2/3.4, EA 05-4482U
Biological Study Area (BSA)
Area of Direct Impact (ADI)
N
0 250 500 1,000
Feet
Published October 2, 2008

Franklin Crk
C
Holly Ave
Linden Ave
Wetlands - CT
Roadside Drainage Ditch
0 25 50 100
Feet
N
Published October 2, 2008
Approx. Location of Ditch
Wetlands Sample Plots
Proposed Pave Edges
Proposed fill
Proposed cut
Potential Soundwall
Biological Study Area
Appendix D1


Carpinteria Creek
101
A
B
Concrete structure to be removed
N
0 25 50 100 Feet
Carpinteria Creek Area Impacts
Permanent Riparian Impacts = 0.118ha (0.29ac)
Temporary Riparian Impacts = 0.193ha (0.48ac)
Temp.Impacts-Other Waters of US = 0.133ha (0.33ac)
Wetlands Sample Plots
Proposed design
Prepared: April 14, 2010

Appendix E: Native Tree Removal Map



Last printed 6/3/2010 10:27 AM

Wetland Data Sheets (six pages)

Sites A and B (by Carpinteria Creek) and C (roadside ditch leading to Franklin Creek)

Wetland Data Point A page 1 - adjacent to Carpinteria Creek pedestrian pathway

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Carp Creek + Via Real City/County: Carpinteria/SB Sampling Date: 4/23/07
Applicant/Owner: CT State: CA Sampling Point: Mid Field-A
Investigator(s): M. Dallas Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Terrace near Carp Creek Local relief (concave, convex, none): _____ Slope (%): ≈ 2-3 %
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Goleta Series/GcC Goleta Fine Sandy Loam NWI classification: Non-Hydric
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No X
Hydric Soil Present? Yes _____ No X
Wetland Hydrology Present? Yes _____ No X

Is the Sampled Area within a Wetland? Yes _____ No X

Remarks: Veg Patch in middle of field. See Map.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	40	Y	FACW
2. Psidium sp guava	30	Y	UP
3. Punica granatum	30	Y	UP
4.			
Total Cover:	100		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Avena fatua	15	Y	UP
2. Bromus diandrus	70	Y	UP
3. Hordeum murinum	5	N	FAC
4. Muhlenbergia microsperma	10	Y	UP
5.			
6.			
7.			
8.			
Total Cover:	100		
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33 % (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: All Non-indicators are treated as UP-species
Willow patch in middle of field -- Homeless Camp

US Army Corps of Engineers Arid West – Version 11-1-2006

Wetland Data Point A page 2, adjacent to Carpinteria Creek pedestrian pathway

SOIL Sampling Point: A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
1-2	10yr 3/2						Organic	Leaf litter
2-4	10yr 3/2						Sandy	
4-16	10yr 3/2						Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks: Sandy Soils, Not on Local or National Hydric Soils list.
Goleta fine sandy loam

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No indicators of wetland Hydrology

US Army Corps of Engineers — Arid West – Version 11-1-2006

Wetland Data Point B, page 1 - adjacent to Carpinteria Creek pedestrian pathway

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CT - Carp creek / via Real City/County: Carpinteria / SB Sampling Date: 5/4/07
Applicant/Owner: CT - city of Carpinteria State: CA Sampling Point: Bike path/via Real
Investigator(s): M. Dallas Section, Township, Range: _____
Landform (hillslope, terrace, etc.): gentle slope Local relief (concave, convex, none): _____ Slope (%): 3
Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Goleta Series / GcC Goleta Fine Sandy Loam NWI classification: Non-Hydric
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: Veg patch @ Bike Path and via Real.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	70	Y	FACW
2. Quercus agrifolia	30	Y	UP
3.			
4.			
Total Cover: 100			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Rubus ursinus	20	Y	FACW
2. Leymus condensatus	20	Y	UP
3. ~~[illegible]~~			
4. Piptatherum miliaceum	10	Y	UP
5. Oxalis pes-caprae	50	Y	UP
6.			
7.			
8.			
Total Cover: 100			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 6 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
___ Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
All Non-indicators are treated as upland species
No obligate wetland plants

US Army Corps of Engineers Arid West – Version 11-1-2006

Wetland Data Point B, page 2 - adjacent to Carpinteria Creek pedestrian pathway

SOIL Sampling Point: B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
1-16	10 yr 3/2						Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
Type: ___
Depth (inches): ___

Hydric Soil Present? Yes ___ No X

Remarks:
Goleta Fine Sandy Loam - Not on local or national Hydric Soils list.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Small channel off of Mobile Home park & via Real w/ debris from curb and gutter system off via Real. ephemeral only.

US Army Corps of Engineers Arid West – Version 11-1-2006

Wetland Data Point C, page 1 (the roadside ditch leading to Franklin Creek)

#1 Drainage Ditch
SBound 101, pm 3.2

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Drainage Ditch SB 101 (leads to Franklin Creek) City/County: Santa Barbara Sampling Date: Aug 4, 2008
Applicant/Owner: State: Sampling Point: SB 101 culvert
Investigator(s): Lisa Schicker Section, Township, Range: by Linden Ave SB 101 Outlet & postmile
Landform (hillslope, terrace, etc.): roadside ditch Local relief (concave, convex, none): ~ Offramp Slope (%): 2-3%
Subregion (LRR): Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)
Are Vegetation ✓, Soil ____, or Hydrology ✓ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No X
Are Vegetation ✓, Soil ____, or Hydrology ✓ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ____	Is the Sampled Area within a Wetland? Yes X No ____
Hydric Soil Present?	Yes ✓	No ____	
Wetland Hydrology Present?	Yes ✓	No ____	

Remarks: This is a 50 yr. old roadside ditch. It leads to a down drain that drains to channelized Franklin Creek. The flow of water coming from culverts is high & "not normal" for this time of year. The vegetation is a mix of roadside landscape plants on top of banks & wetland plants in the water.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2. N/A			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2. Baccharis on top of bank	<5%	N	
3. no trees in water			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Cyperus sp – nutsedge	25%	Y	fac wet
2. Poriippa nasturtium aquaticum found in water	50%	Y	fac wet
3.			
4. Nasturtium – nonnative	NA		
5. – landscape iceplant			
6. on top of banks; ruderal grasses	NA		
7. Sample was in water			
8.			
Total Cover: 75%			
Woody Vine Stratum			
1. N/A			
2.			
Total Cover: 25%			

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: Vegetation is a mixture of roadside "escapees" – iceplant, ruderal grasses that are on the top of bank – wetland emergents are in the water.

US Army Corps of Engineers Arid West – Version 11-1-2006

Wetland Data Point C, page 2 (the roadside ditch leading to Franklin Creek)

SOIL

Sampling Point: #1 Drainage Ditch SB 101 approx Post mile 3.2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
	N/A							

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks: Did not conduct soil test - sample location was 1-3' deep water in August, 2008

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ✓ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ✓	No _____	Depth (inches): 12-36"
Water Table Present?	Yes _____	No _____	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No _____	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Roadside ditch - No data available

Remarks: 50 year old Roadside ditch; wetland vegetation present ditch has abnormally high level of water (source residential & ag thru culverts) drains to dam drain culvert that drains to channelized Franklin Creek.

US Army Corps of Engineers — Arid West – Version 11-1-2006

Appendix F :Summary of Avoidance, Minimization, Compensatory Mitigation, Monitoring and Reporting Measures

This summary was created on December 9, 2008 and will be revised as needed as project moves through PSE.

Latest Revision: June 1, 2010

A. General Avoidance and Minimization Measures

1. Limit the Work Area, Install ESA (Environmentally Sensitive Area) Fencing
2. Preconstruction Surveys
3. Duties of the Biologist and/or Environmental Monitor
4. Authority of the Biologist and/or Environmental Monitor
5. Equipment Maintenance Restriction
6. Trash Control
7. Erosion Control and Stormwater Management
8. Invasive Plant Control
9. Revegetation and Site Restoration
10. Restoration and Monitoring Plan
11. Aquatic Work

B. Additional Avoidance and Minimization Measures for Special Status Plants (None)

C. Additional Avoidance and Minimization Measures for Special Status Wildlife and Critical Habitat - Steelhead and Tidewater Goby

D. Compliance with Migratory Bird Treaty Act

E. Additional Avoidance and Minimization Measures for Aquatic and Riparian Habitats

F. Compensatory Mitigation

G. Summary of Success Criteria, Monitoring and Reporting Measures

This NES report includes avoidance, minimization, compensatory mitigation and monitoring agreements that are negotiated with the project PDT (Project Development Team) and all of the regulatory agencies that have jurisdiction over this project.

This list of recommendations are pending final comments and concurrence by the regulatory agencies who have yet to review this project through the CESA/ESA Section 7 and the CEQA/NEPA review and permit processes. As the project develops, these agreements will become refined and possibly revised.

This list of measures has been prepared for use by Caltrans personnel who are and/or who will be responsible for implementing various recommendations that are made by the PDT and all regulatory agencies during and after construction.

A. General Avoidance and Minimization Measures

To avoid and minimize impacts to all biological resources within the project area, the following avoidance and minimization measures shall be implemented project wide:

1. **Limit the Work Area and Install ESA (Environmentally Sensitive Area) Fencing**. The number of access routes, size of staging areas and the total area of the activity shall be limited to the minimum necessary to safely construct this project. All access will be restricted to the existing roads and designated temporary access areas.

   Environmentally Sensitive Area (ESA) fencing will be installed to limit construction activities and protect biological habitats of concern. Proposed ESA fencing will be established at all wetland and riparian areas and all areas that exhibit good wildlife habitat potential, in order to avoid, minimize and reduce any potential impacts to biological resources. ESA fencing locations will be determined in PSE phase of project.

   Special Provisions for installation of ESA fencing shall also be included in the Construction Contract and shown on Project Plans and Layout Sheets. Routes and boundaries shall be clearly delineated in the field with ESA fencing to minimize activities adjacent to biological resources, including drainages, wetlands and/or native plant communities. All ESA fencing delineated in the field must be approved by the project Biologist prior to beginning any construction activities, including vehicle storage. Resident Engineer to contact Lisa Schicker, Caltrans Biologist (805-549-3628), Caltrans Construction Environmental Liaison George Sistek (805-549-3487) or Caltrans Environmental Planning Supervisor Chuck Cesena (549-3622).

2. **Preconstruction Surveys.** In order to ensure that all potential impacts to the biological resources discussed in this document are avoided and/or minimized, and due to the long lead-time until construction, pre-construction surveys for special status species (both plants and animals) must be conducted by a qualified Caltrans biologist or designee. Surveys will be conducted approximately one year prior to construction, during the appropriate survey season.

   As delineated on project maps in Appendix A, the ADI includes all temporary construction access areas and routes, vehicle and equipment storage areas, and staging areas.

If any federally listed species are found during the preconstruction surveys, the project shall cease until Formal Section 7 Consultation between FHWA and USFWS is completed.

If any native wetland plants are found within the proposed work area during preconstruction surveys, they will be collected, salvaged and/or relocated to temporary storage areas or to wetland areas that are out of the ADI.

If any state special status species are found during the pre-construction surveys, the project shall cease until consultation between Caltrans and Department of Fish and Game is completed.

3. **Duties of the Biologist and/or Environmental Monitor.** If any special status species are found in the ADI during construction and then after any and all required consultations with agencies have occurred, the Caltrans Biologist or designee shall be present at the construction site until such time as removal of all special status species has occurred and all instruction has been given to the workers.

   A Biological/Environmental Monitor will be present on site during construction activities that may impact the ocean and marine environment, special status species and/or migratory birds. This includes drilling and blasting for the construction of piers and abutments for new bridges and the sound wall and any associated dewatering activities.

4. **Authority of the Biologist and/or Environmental Monitor**. The Caltrans Resident Engineer, in consultation with the Biologist and/or Environmental Monitor shall have the authority to halt any action that might result in impacts that exceed the anticipated levels of impact that were determined during agency review (by Caltrans, ACOE, DFG, CC and/or USFWS) of the proposed actions. If work is stopped, these same regulatory agencies shall be notified immediately by the Biologist or Environmental Monitor.

5. **Equipment Maintenance Restrictions**. All refueling and maintenance of equipment and vehicles shall be at least 20 meters (60 feet) from any aquatic habitat, wetland area or any water body. The contractor shall ensure contamination of habitat does not occur during such operations. All workers shall be informed of the importance of preventing spills of fuels and of the appropriate measures to take should a spill occur.

   Prior to the onset of work, the Army Corps of Engineers shall ensure that the permittee has prepared a plan to allow a prompt and effective response to any accidental spills around aquatic habitats. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

6. **Trash Control**. During construction, all trash that may attract predators shall be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

7. **Erosion Control and Stormwater Management**. All construction activities shall be completed in accordance with Caltrans National Pollution Discharge Elimination System (NPDES) Permit, the General Construction Permit and Caltrans Statewide Stormwater Management Plan (SWMP).

   To protect all adjacent biological habitats of concern (including willow riparian wetlands and native vegetation areas) and for all exposed soils and drainage repair areas during after construction, Caltrans shall implement best management practices (BMPs), as identified by the appropriate Regional Water Quality Control Board. These BMP's will be implemented to minimize or eliminate the potential for a non-storm water discharge to occur. Construction site BMPs are addressed in detail in the Storm Water Pollution Control Plan (SWPPP) that will be developed for the project site.

8. **Invasive Plant Control**. In compliance with the Executive Order on Invasive Species, E.O. 13112, and subsequent guidance from the Federal Highway Administration, the landscaping and erosion control included in the project will not use species on the California List of Noxious Weeds http://ucce.ucdavis.edu/files/filelibrary/5319/4893.pdf. Measures to control invasive exotic plants shall be implemented according to the Caltrans Landscape Architect's recommendations. Exotic and invasive weeds such as ice plant, kikuyu grass, fennel, pampas grass, fountain grass and other assorted invasive plants that are listed as "most invasive" on the list will be removed within the ADI and topsoil will not be used in any revegetation areas due to the presence of a high quantity of weed seeds.

Revegetation and Site Restoration. . The maximum total disturbed soil area (DSA) will be approximately 37 acres (Alternative 1). DSA was calculated by accounting for areas of all cut and fill, along with areas of construction for activities.

Alternative 1 = 15.02 hectares (37.11 acres)

Alternative 2 = 14.58 ha (36.04 ac.)

Alternative 3 = 14.55 ha (35.94 ac.)

Alternative 4 = 15.02 ha (37.11 ac.)

Alternative 1 yielded the largest net increase of impervious surface area: 5.58 acres (18.06 acres after construction minus the 12.58 existing acres). After construction is complete, project sites shall be first evaluated for the potential for successful revegetation and restorations. An appropriate assemblage of suitable native riparian wetland and/or native vegetation shall be recommended by Biology and Landscape Architecture.

Natural habitat impacts are both temporary and permanent: impacts to riparian vegetation areas along Carpinteria Creek (for all four build alternatives) totals approximately 0.47 acres temporary and 0.29 acres of permanent impact. Approximately 21 riparian trees will be removed and eight native coast live oak trees adjacent to Carpinteria Creek Bridge will be removed.

Impacts to wetlands (Coastal Commission) that are adjacent to Franklin Creek include approximately .04 acre of temporary and .01 acres of permanent impact, respectively for all four alternatives under consideration. Final impact totals will be quantified following the availability of final design. Cumulative impacts will also occur at this location due to the Santa Barbara South 101 HOV Project (a project to increase capacity by widening the existing 4 lanes to six lanes, adding an HOV lane in each direction from post mile 2 – 12. 3); details are unavailable at this time.

Permanently impacted wetlands and waters shall be replaced as part of the project and considered as part of the avoidance and minimization measures. Vegetation and habitat loss in these areas shall be replaced onsite using native plants at a 3:1 ratio. Plant salvage, local seed collection and contract growing are potential techniques that may be used to minimize the loss of native wetland plants. Locally collected and salvaged plants and seeds can then be used for project revegetation and restoration purposes.

Invasive plant species are located throughout the project area and will be removed.

Recommended replacement ratios for all vegetation removed are as follows:

Ornamental landscaped areas in the DSA – replaced at 1:1 with native plants (acreage)

Native trees > 6” dbh - oaks – replaced at 10:1 (oak trees)

Native riparian trees > than 6” dbh - willows, sycamores, cottonwoods, etc., replaced at 3:1

Native riparian shrubs/vegetation areas - replaced at 3:1 (acreage)

Wetlands (ACOE and CC), Waters of the US and wetland vegetated areas - permanent impacts replaced at 3:1 and temporary impacts replaced at 1:1(acreage)

9. **Restoration and Monitoring Plan**. If required by a local, State and/or Federal agency with permitting authority such as Coastal Commission, City of Carpinteria, or Army Corps of Engineers, a Restoration and Monitoring Plan shall be prepared. Such a plan includes, but is not limited to, the project description, location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.

B. Additional Avoidance and Minimization Measures for Special-Status Plants

1. **Host plants and habitat for roosting and/or migrating Monarch Butterflies**. Preconstruction surveys for host plants will occur during June-September in the year prior to construction. If found, the project shall cease until monarch butterflies have completed their migration.

There are no special status plants that have been found in the project ADI. No additional measures are anticipated – use all general measures listed above.

C. Additional Avoidance and Minimization Measures for Special Status Wildlife:

Steelhead and Tidewater Goby

1. **Additional pre-construction surveys for special status wildlife** will be re-conducted by the Caltrans Biologist (or designee) - for all species known to occur in the project vicinity approximately two weeks prior to beginning of construction. Because of time lag between document preparation and construction and because these species are known to reside or possibly reside in or adjacent to the project ADI, they could move into the project area by the time construction begins.

2. Before construction begins, Caltrans will have obtained a Biological Opinion from USFWS for special status tidewater goby and a Biological Opinion from NOAAF for special status steelhead as required by the Endangered Species Act, Formal Consultation process under ESA Section 7. Caltrans will adhere to all agreements made in the Biological Opinion.

3. If any additional federal listed species are found during the preconstruction surveys, the project shall cease until Formal Section 7 Consultation between FHWA and USFWS is completed.

4. If any state special status species are found during the pre-construction surveys, the project shall cease until consultation between Caltrans and Department of Fish and Game is completed.

5. Resident Engineer to notify Lisa Schicker, Biologist at 805-549-3628 of the construction start date.

6. On-Site Wildlife Identification Training will be conducted before construction begins. A Caltrans Biologist (or designee) will conduct a training session for all construction personnel before any construction activities begin. The training session shall include a description of all special status species known to occur in the project vicinity (Tidewater goby and/or steelhead). The biologist will discuss their habitats, their importance and general measures being implemented to conserve these species as they relate to the project boundaries. Brochures, photographs, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

7. Tidewater Goby and/or Steelhead – The Environmental Monitor/biologist will be monitoring all aquatic activity during construction to insure compliance with conditions found in the Biological Opinions. If the monitor observes abnormal activities or behaviors, she/he will ask the resident engineer to cease all activities until USFWS and NOAA can be consulted and additional avoidance and minimization measures are put in place.

8. Construction within or adjacent to Carpinteria Creek would only take place during low flow between May 1st and October 31st in order to avoid impacting migrating steelhead trout.

9. Fish passage would be maintained during and construction through a flexible pipe culvert of adequate size in order to facilitate fish passage. Fish passage will be improved after construction due to the removal of in-stream concrete barrier.

10. Following water diversion installation, any remaining fish within the area to be dewatered will be removed using a seine and dip nets. Any steelhead trout encountered during the seining of the dewatered area will be relocated to a suitable location within Carpinteria Creek.

11. All disturbance to riparian vegetation and jurisdictional waters shall be minimized with the use of ESA fencing and all soil exposed as a result of the project shall be re-vegetated using native hydroseeding, or live planting methods.

12. Caltrans shall restore the contour, slope and surrounding area of the creek bed to pre-construction conditions or better.

13. **Additional Avoidance and Minimization Measures for Tidewater Goby**

All work activities within and adjacent to Carpinteria Creek shall be completed outside of the primary breeding season to reduce the potential harassment and mortality of tidewater gobies. The window of work for construction within or adjacent to Carpinteria Creek and Franklin Creek would be during the low flow period between May 1st and October 31st.

Only qualified personnel authorized under a biological opinion shall participate in activities associated with the capture, handling, and relocation of tidewater gobies. The names and credentials of personnel who desire to conduct these activities shall be supplied to the USFWS for their review and approval at least 15 day prior to the onset to these activities.

If water is to be pumped around work sites, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent tidewater gobies from entering the pump system.

During the de-watering effort, if present, as many tidewater gobies as possible shall be removed prior to draining the site. After barriers are constructed, tidewater gobies shall be captured, transported in buckets, and released in the most appropriate habitat immediately adjacent to the de-watered area. If a beach seine is used, it shall be pulled to shore in a deliberate manner with care being taken to avoid rolling the lead line inward. The number of tidewater gobies shall be estimated prior to release. All debris and aquatic and emergent vegetation in the pumped area shall be carefully inspected for tidewater gobies and other vertebrates. As the work site is de-watered, remaining pools shall be inspected for tidewater gobies. As many individuals as possible shall be captured using dip nets and other appropriate tools and moved as described above. Handling time for tidewater gobies shall be minimized to the maximum extent practicable.

In work areas that have been de-watered, water above the barrier shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, the barriers to flow shall be removed in a manner that will allow flow to resume with the least disturbance to the substrate.

Fish passage would be maintained during and after construction.

All disturbance to potential tidewater goby habitat including riparian vegetation and jurisdictional waters shall be minimized with the use of ESA (environmentally sensitive area) fencing and all soil exposed as a result of the project shall be revegetated using native hydroseeding or live planting methods.

If the substrate of the stream is altered during work activities, it shall be graded or otherwise treated to pre-construction conditions or better after the work is completed.

D. Additional Avoidance and Minimization Measures for Migratory Bird Treaty Act Compliance

Migratory Bird Species.

Common migratory birds are not a threatened, endangered or special status species, but are still protected under the Migratory Bird Act. A variety of species have been observed within the BSA and ADI. Temporary impacts and loss of nesting habitat for 2-3 seasons is anticipated. Special status migratory birds, such as the cliff swallow, have not been observed nesting within the project area.

A pair of raptors (red-tailed hawks) is known to use a tall eucalyptus tree adjacent to Carpinteria Creek that will be removed for the new bridge construction.

Barn swallows that were observed as well as all migratory birds are also protected under the Migratory Bird Treaty Act, and have been observed nesting under the bridges within the ADI. If necessary, special measures can be taken prior to the breeding season to insure that all migratory birds do not nest within the ADI during project construction.

1. All habitat used by migratory birds that will be removed to build the project should be removed from September 1- February 15, before the migratory season begins.

2. Preconstruction surveys should be conducted for presence/absence for active nests of birds that are protected under the Migratory Bird Treaty Act one year prior to the period of construction, during the nesting season (February 15- August 31).

3. Non – Standard Special Provisions (NSSP's) for migratory bird protection will be included with the Project Plans and Specifications.

E. Additional Avoidance and Minimization Measures for Aquatic Habitats

Aquatic Habitats and Waters of the U.S*:* Carpinteria and Franklin Creeks (and the Franklin Creek ditches located at Soundwall Location B9 and at the Linden Avenue Overcrossing, northbound side of Route 101) are considered "Other Waters of the U.S." under jurisdiction of the U.S. Army Corp of Engineers. Adjacent riparian and wetland areas are under jurisdiction DFG and the Coastal Commission.

1. To avoid and/or reduce temporary impacts to jurisdictional waters and aquatic habitats, diversion of waters during construction may be required.

2. Dewatering. If a work site is to be temporarily dewatered by diversion, pumping and treating, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent all aquatic wildlife from entering the pump system. Water shall be released or pumped to an appropriate location at a rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

Wetlands: Riparian wetland and wetland areas are regulated under the jurisdiction of the both the California Coastal Commission (through Carpinteria City Local Coastal Program and the Coastal Act) and the U.S. Army Corp of Engineers. There are small patches of impacted wetlands within the ADI at the ditches leading to Franklin Creek and there is also willow riparian wetland areas impacted within the ADI at Carpinteria Creek (see Maps Appendix A). To reduce/minimize and compensate for any possible direct or indirect impacts to the wetland areas adjacent to the ADI during construction, the following measures shall be followed:

1. Adjacent wetlands shall be fenced off as an ESA with either ESA fencing or silt fencing, depending on the proximity of the work area to the wetlands and the drainage (see proposed locations on Maps in Appendix A). The project biologist must be contacted prior to beginning any activities in this area to approve the ESA in the field.

F. Compensatory Mitigation Measures

Compensatory mitigation is defined as project items or measures that are proposed by Caltrans and/or required by regulatory agencies to mitigate for impacts that could not be avoided after all avoidance and minimization measures have been implemented as part of the project.

Mitigation agreements are often required by various regulatory agencies later in the Project Development process, during the design and permit stages of project development.

1. Revegetation and Mitigation. After construction is complete, all project sites shall be revegetated with an appropriate assemblage of native vegetation suitable for the area, as recommended by Landscape Architecture. Impacts due to loss of all types of vegetation was considered in the avoidance and minimization measures section of this report, and will be replaced at various ratios.

2. Aquatic Habitat Mitigation. There are permanent impacts to aquatic habitat (wetlands and/or other waters). Permanent impacts to jurisdictional waters and wetlands within the Caltrans drainage ditch that leads to Franklin Creek will be mitigated by enhancement of the remaining channel (3:1 ratio) and/or donations to the Carpinteria Creek Preservation efforts. All temporary construction impacts to aquatic habitat will be mitigated through 3:1 habitat replacement and conditions set forth in the ACOE, Coastal Commission and NPDES permits and using BMPS for water quality.

G. Summary of Success Criteria, Monitoring and Reporting Measures

A Mitigation, Monitoring, Restoration and Success Criteria Plan shall be prepared for this project summarizing all information found in the Project Appendices. Details of this plan are final as May 27, 2010 but are pending final negotiation and review of the NES and environmental documents by various agencies and all members of the PDT.

The plan shall include all recommendations made for avoidance, minimization and compensatory mitigation for special status species, migratory birds, aquatic habitat, revegetation, stream and stream bank habitat restoration, and eradication and control of the spread of invasive plants.

It shall also include success criteria for each item that is specified in the Compensatory Mitigation Plan.

A three-to-five year monitoring schedule, with annual reports to various agencies is typically recommended.

1. Establish Bi-Annual Monitoring Schedule. For 3 years, conduct biannual environmental monitoring for all mitigation plantings and aquatic habitat restoration work in order to determine if project meets success criteria and to request any needed replacement plantings. Resident Engineer to contact Lisa Schicker, Biologist at 805-549-3628, Supervising Environmental Planner Chuck Cesena (549-3622) or David Emerson, Landscape Architect (549-3357) or Supervising Landscape Architect Dennis Reeves (549-3191).

1. Develop an Installation and Maintenance Contract. Develop an installation and maintenance contract for all mitigation plantings and habitat restoration areas. The maintenance agreement shall be at least three years in length and will be included in the Landscape Architect's PSE package and Report. During that time, all invasive weeds should be regularly removed and a 70% survival rate for of all plantings three years post construction is the target goal.

2. Annual Reporting. Caltrans Biologist or designee will prepare monitoring reports for various agencies if they are needed as part of conditions set forth in permits. Annual reports summarizing results shall be sent to any requesting and appropriate State and Federal Agencies (ACOE).

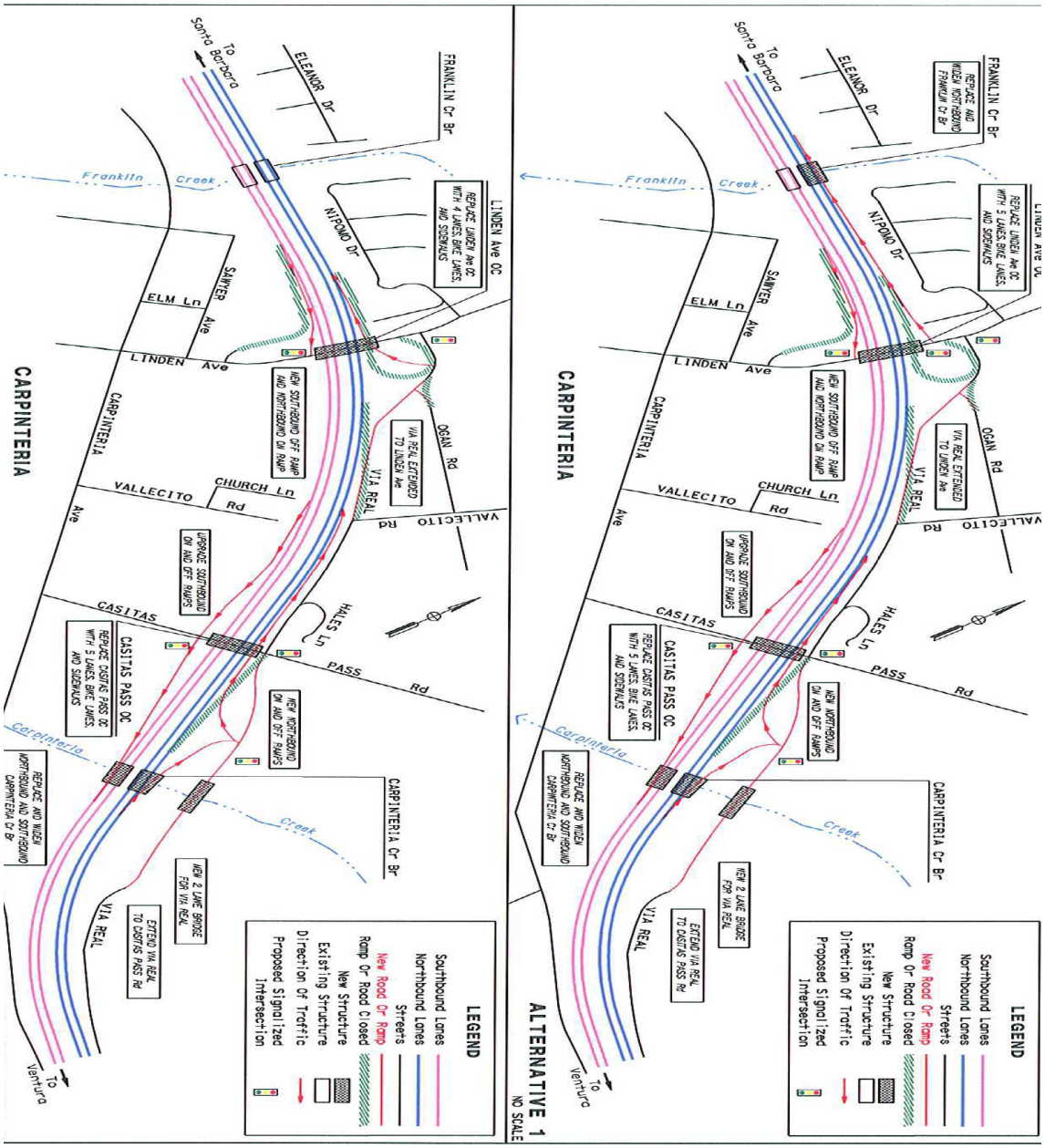
3. Create a Restoration and Monitoring Plan. A Restoration and Monitoring Plan may also be required by ACOE as part of their permitting authority and project conditions. Such a plan must include, but is not limited to, the project description, location of the restoration, species to be used, restoration techniques, time of year the work will be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved.

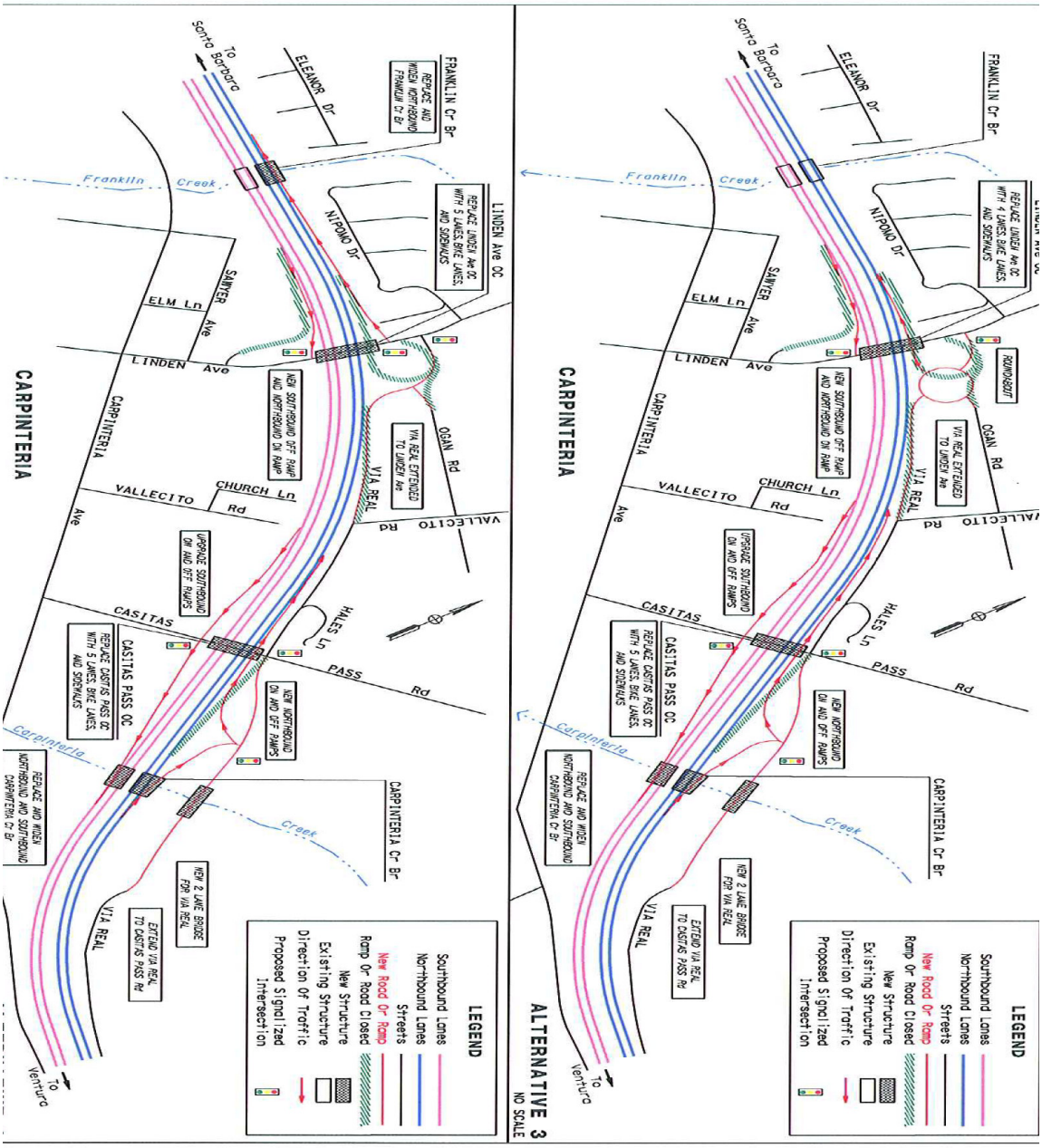
Resident Engineer to contact Lisa Schicker, Caltrans Biologist (805-549-3628),

Caltrans Construction Environmental Liaison George Sistek (805-549-3487) or

Caltrans Environmental Planning Supervisor Chuck Cesena (549-3622).

Appendix G Project Plans – Alternatives 1- 4


ALTERNATIVE 1
NO SCALE
CARPINTERIA
To Santa Barbara
To Ventura
FRANKLIN Cr Br
REPLACE AND WIDEN NORTHBOUND FRANKLIN Cr Br
ELEANOR Dr
Franklin Creek
LINDEN Ave OC
REPLACE LINDEN Ave OC WITH 5 LANES, BIKE LANES, AND SIDEWALKS
NIPOMO Dr
SAWYER Ave
ELM Ln
LINDEN Ave
NEW SOUTHBOUND OFF RAMP AND NORTHBOUND ON RAMP
VIA REAL EXTENDED TO LINDEN Ave
OCEAN Rd
VIA REAL
CARPINTERIA Ave
CHURCH Ln
VALLECITO Rd
UPGRADE SOUTHBOUND ON AND OFF RAMPS
CASITAS PASS Rd
HALES Ln
CASITAS PASS OC
REPLACE CASITAS PASS OC WITH 5 LANES, BIKE LANES, AND SIDEWALKS
NEW NORTHBOUND ON AND OFF RAMPS
Carpinteria Creek
CARPINTERIA Cr Br
REPLACE AND WIDEN NORTHBOUND AND SOUTHBOUND CARPINTERIA Cr Br
NEW 2 LANE BRIDGE FOR VIA REAL
EXTEND VIA REAL TO CASITAS PASS Rd
LEGEND
Southbound Lanes
Northbound Lanes
Streets
New Road Or Ramp
Ramp Or Road Closed
New Structure
Existing Structure
Direction Of Traffic
Proposed Signalized Intersection


CARPINTERIA
FRANKLIN Cr Br
REPLACE AND WIDEN NORTHBOUND FRANKLIN Cr Br
ELEANOR Dr
To Santa Barbara
Franklin Creek
LINDEN Ave OC
REPLACE LINDEN Ave OC WITH 5 LANES, BIKE LANES, AND SIDEWALKS
NIPOMO Dr
SAWYER Ave
ELM Ln
LINDEN Ave
NEW SOUTHBOUND OFF RAMP AND NORTHBOUND ON RAMP
VIA REAL EXTENDED TO LINDEN Ave
VIA REAL
OGAN Rd
CARPINTERIA Ave
VALLECITO Rd
CHURCH Ln
UPGRADE SOUTHBOUND ON AND OFF RAMPS
CASITAS PASS Rd
HALES Ln
CASITAS PASS OC
REPLACE CASITAS PASS OC WITH 5 LANES, BIKE LANES, AND SIDEWALKS
NEW NORTHBOUND ON AND OFF RAMPS
Carpinteria Creek
REPLACE AND WIDEN NORTHBOUND AND SOUTHBOUND CARPINTERIA Cr Br
CARPINTERIA Cr Br
NEW 2 LANE BRIDGE FOR VIA REAL
EXTEND VIA REAL TO CASITAS PASS Rd
To Ventura
LEGEND
Southbound Lanes
Northbound Lanes
Streets
New Road Or Ramp
Ramp Or Road Closed
New Structure
Existing Structure
Direction Of Traffic
Proposed Signalized Intersection
ALTERNATIVE 3
NO SCALE
ROUNDABOUT