Natural Environment Study Supplement

Lower SR-74 (Ortega Highway) Widening

Calle Entradero to City of San Juan Capistrano/County Line

12-ORA-74- PM 1.0/1.9

EA 086920

August 2008

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Natural Environment Study Supplement

Lower SR-74 (Ortega Highway) Widening

Calle Entradero to City of San Juan Capistrano/County Line

12-ORA-74- PM 1.0/1.9

EA 086920

August 2008

STATE OF CALIFORNIA
Department of Transportation

Prepared By: A. Beazley Date: 8/15/08

Adrianne Beazley
(760) 931-5471
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, CA 92614

Approved By: Arianne Preite Date: 11/12/08

Arianne Preite
(949) 724-2704
California Department of Transportation
District 12

Approved By: Charles Baker Date: 11-12-08

Charles Baker, Chief, Branch C
Environmental Planning
(949) 724-2252
California Department of Transportation
District 12

Summary

This Natural Environment Study (NES) Supplement (Supplement) has been prepared as an update to the June 2007 NES (2007 NES) previously prepared and approved for the Lower State Route 74 (SR-74) (Ortega Highway) Widening project in the City of San Juan Capistrano (City).

Since the preparation of the 2007 NES, the project footprint has been modified slightly, and it has been determined that an Environmental Impact Report (EIR) will be required. Therefore, the State of California Department of Transportation (Department) decided to update the previous fieldwork, including vegetation mapping, delineation of potentially jurisdictional wetlands and waters, and floral and faunal inventories, and to provide additional fieldwork in response to comments received by the public regarding the Public Review Draft Mitigated Negative Declaration. Additional fieldwork includes a comprehensive survey and evaluation of mature trees that may be affected by the project by a certified arborist and focused surveys for special-status plant species.

In order to prepare this Supplement, biologists requested an updated species list from the United States Fish and Wildlife Service (USFWS), and queried the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Online Inventory to determine if any additional species should be considered.

No additional special-status species were identified with the potential to be affected by the project. The USFWS indicated that critical habitat for the federally listed as threatened coastal California gnatcatcher *(Polioptila californica californica)* is no longer present on the project site. The results of the focused surveys for special-status plant species were negative. The comprehensive tree inventory identified 215 trees within the study area, 111 of which will be impacted as a result of the proposed project. Potential direct impacts to wildlife are limited to adverse effects to nesting birds.

No impacts to natural communities of concern will occur. The project would result in temporary impacts to 0.45 acres (ac) of developed areas, 1.96 ac of ornamental vegetation, and 0.45 ac of ruderal vegetation, and permanent impacts to 5.63 ac of developed areas, 1.96 ac of ornamental vegetation, 1.43 ac of ruderal vegetation, and 0.04 ac of disturbed wetlands. The disturbed wetlands on the site do not constitute a natural community of concern.

The jurisdictional wetlands delineation and assessment of waters concluded that the areas potentially subject to United States Army Corps of Engineers (Corps) and California Department of Fish and Game (CDFG) jurisdiction associated with the areas identified as Drainage System (DS) 7, 8, and 10 are substantially smaller than identified in the 2007 NES. The 2007 NES indicated that the permanent impacts to potentially jurisdictional areas would total 0.134 ac. Based on the jurisdictional delineation conducted in 2008, permanent impacts to potentially jurisdictional areas total 0.058 ac to potential Corps waters of the United States (U.S.) and 0.098 ac to CDFG streambed. The difference in jurisdictional areas identified in 2008 is based on field work conducted in accordance with the *Corps of Engineers Wetland Delineation Manual* (January 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (December 2006), as well as application with current regulatory guidance. Consultation with the Corps and the CDFG was conducted on May 28, 2008, to discuss the differences in conclusions based on the 2008 fieldwork. Both agencies agreed they would accept the results of a formal jurisdictional delineation conducted in accordance with current protocols to document the revised total jurisdictional acreage.

Table of Contents

Summary iii
Table of Contents v
List of Figures vii
List of Tables viii
List of Abbreviated Terms ix
Chapter 1. Introduction 1
1.1. Project History 1
1.1.1. Relevant Transportation Planning Documents 5
1.2. Purpose and Need 5
1.2.1. Purpose 5
1.2.2. Need 6
1.2.2.1. Existing Deficiencies 6
1.2.2.2. Projected Deficiencies 7
1.2.2.3. Social and Economic Demands 7
1.3. Project Description 7
1.3.1. Common Features of the Build Alternatives 8
1.3.1.1. Highway Widening 8
1.3.1.2. Intersection Improvements 8
1.3.1.3. Driveways 9
1.3.1.4. Pedestrian and Bicycle Facilities 9
1.3.1.5. Right-of-Way Acquisitions 10
1.3.1.6. Cut and Fill 10
1.3.1.7. Drainage Improvements 10
1.3.1.8. Retaining Walls 10
1.3.1.9. Sound Walls 11
1.3.1.10. Signals and Lighting 11
1.3.1.11. Utilities 11
1.3.1.12. Landscaping 12
1.3.1.13. Pavement Rehabilitation 12
1.3.1.14. Construction 12
1.3.2. Unique Features of Build Alternatives 12
1.3.2.1. Build Alternative 1 12
1.3.2.2. Build Alternative 2 12
1.3.2.3. No Build Alternative 13
Chapter 2. Study Methods 14
2.1. Regulatory Requirements 15
2.1.1. United States Army Corps of Engineers 15
2.1.2. Regional Water Quality Control Board 17
2.1.3. United States Fish and Wildlife Service (USFWS) 18
2.1.4. California Department of Fish and Game 19
2.1.5. Nesting Birds 19
2.1.6. Natural Community Conservation Plans 20
2.1.7. Tree Preservation Ordinance/Tree Removal Permit 20
2.2. Studies Required 20
2.3. Personnel and Survey Dates 21
2.4. Agency Coordination and Professional Contacts 21
2.5. Limitations That May Influence Results 22

Chapter 3. Results: Environmental Setting 23
3.1. Description of Biological Conditions 23
3.1.1. Vegetation 23
3.1.2. Jurisdictional Areas 23
3.1.3. Invasive Species 26
3.2. Regional Species and Habitats of Concern 29
Chapter 4. Results: Biological Resources, Discussion of Impacts, and Mitigation 41
4.1. Natural Communities of Special Concern 41
4.2. Special-Status Plant Species 44
4.2.1.1. Avoidance and Minimization Efforts 44
4.2.1.2. Project Impacts 44
4.2.1.3. Compensatory Mitigation 45
4.2.1.4. Cumulative Effects 46
4.3. Special-Status Animal Species Occurrences 46
4.3.1. Nesting Birds 48
4.3.1.1. Survey Results 48
4.3.1.2. Avoidance and Minimization Efforts 48
4.3.1.3. Project Impacts 48
4.3.1.4. Compensatory Mitigation 49
4.3.1.5. Cumulative Effects 49
Chapter 5. Results: Permits and Technical Studies for Special Laws or Conditions 50
5.1. Federal Endangered Species Act Consultation Summary 50
5.2. Federal Fisheries and Essential Fish Habitat Consultation Summary 50
5.3. California Endangered Species Act Consultation Summary 50
5.4. Wetlands and Other Waters Coordination Summary 50
5.4.1. Survey Methods 50
5.4.2. Results 51
5.4.3. United States Army Corps of Engineers 52
5.4.4. California Department of Fish and Game 53
5.4.5. Impacts 53
5.4.6. Agency Coordination 55
5.4.7. Avoidance and Minimization Measures and Compensatory Mitigation 55
5.5. Invasive Species 58
5.6. Other 58
Chapter 6. References 59
Appendix A Preliminary Design Layouts 61
Appendix B Flora and Fauna Observed 62
Appendix C Wetlands Delineation and Assessment of Jurisdictional Waters Report 67
Appendix D USFWS Species List and Correspondence 68

List of Figures

Figure 1 Regional Location Map 2
Figure 2 Vegetation Communities and Photograph Locations 24
Figure 3 Potential CDFG and Corps Jurisdictional Areas 27
Figure 4 Site Photographs 42

List of Tables

Table A Existing and Future Levels of Service (LOS) 7
Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area 30
Table D Trees to be Removed 45
Table E Impacts to Potential Corps and CDFG Jurisdictional Areas 54

List of Abbreviated Terms

AC	Asphalt Concrete
ADA	Americans with Disabilities Act
BMPs	Best Management Practices
BRCP	Biological Resources Construction Plan
BSA	Biological Study Area
CBSP	Orange County Transportation Authority Commuters Bikeways Strategic Plan
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
City	City of San Juan Capistrano
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CWA	Federal Clean Water Act
dbh	Diameter at breast height (~4 ft)
Department	California Department of Transportation
DS	Drainage System
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Environmentally Sensitive Area
FEIR	Final Environmental Impact Report
FESA	Endangered Species Act
FHWA	Federal Highway Administration
ft	foot/feet
GPA	General Plan Amendment
HCP	Habitat Conservation Plan
I-5	Interstate 5
I-15	Interstate 15
IA	Implementing Agreement
IS/MND	Initial Study/Mitigated Negative Declaration

km	kilometer(s)
KP	kilometer post
LOP	Letter of Permission
LOS	Level of Service
m	meter(s)
MBTA	Federal Migratory Bird Treaty Act
mi	mile(s)
mph	miles per hour
MSAA	Master Streambed Alteration Agreement
NWP	Nationwide Permit
OCTA	Orange County Transportation Authority
NES	Natural Environment Study
NCCP	Natural Community Conservation Plan
PDT	Project Development Team
Porter-Cologne Act	State Porter-Cologne Water Quality Control Act
PM	post mile
PSR	Project Study Report
RMV	Rancho Mission Viejo
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SAMP	Special Area Management Plan
SCAG	Southern California Association of Governments
SR-74	State Route 74
SWPPP	Storm Water Pollution Prevention Plan
USFWS	United States Fish and Wildlife Service
ZC	Zone Change

Chapter 1. Introduction

The State of California Department of Transportation (Department) proposes to widen State Route 74 (SR-74) from two lanes to four lanes from Calle Entradero (post mile [PM] 1.0) to the City of San Juan Capistrano(City)/County of Orange (County) limits (eastern City limit) (PM 1.9). The Department is the Lead Agency for the California Environmental Quality Act (CEQA) and the City is a Responsible Agency under CEQA. The total length of the project is approximately 0.9 mile (mi). Figure 1 shows the regional location of the project and the project vicinity.

SR-74, also known as Ortega Highway, is a major east-west arterial in south Orange County extending from Interstate 5 (I-5) in the City northeast to Riverside County, where it intersects with Interstate 15 (I-15). SR-74 then extends further northeast toward the City of Palm Desert in Riverside County.

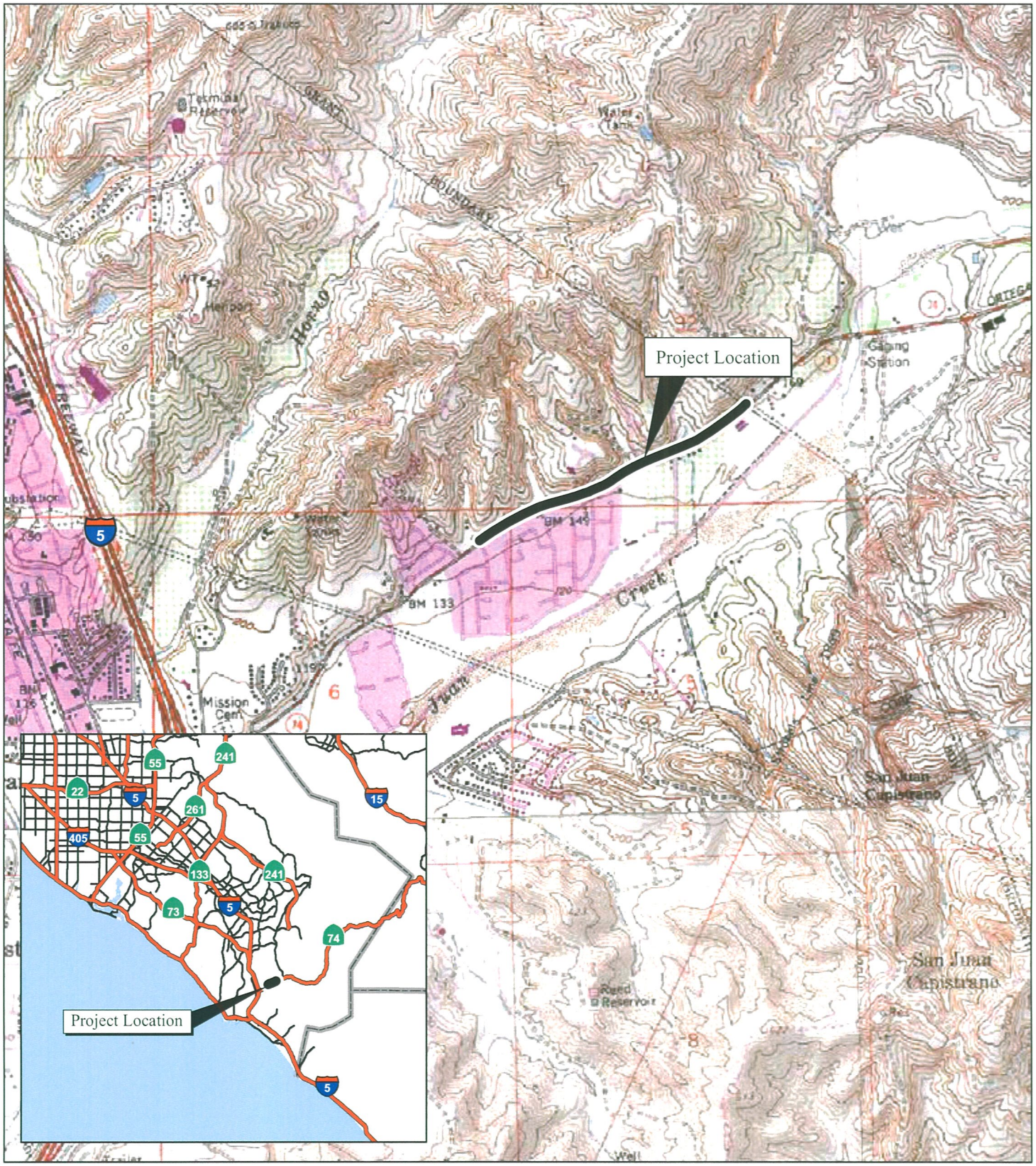
The existing SR-74 alignment consists of four through lanes from I-5, then goes into three through lanes, and at approximately 330 feet (ft) east of Via Cordova it transitions to two through lanes. The alignment of the existing roadway imposes driving restrictions such as limited sight distance and difficulties in negotiating sharp curves.

Five roadways intersect with SR-74 from the south, within the project limits. They are: Calle Entradero, Via Cordova, Via Cristal, Via Errecarte, and Avenida Siega. North of SR-74, Via Cordova becomes Hunt Club Drive and Avenida Siega becomes Shade Tree Lane; Via Cristal and Via Errecarte are tee intersections. Additionally, to the north of SR-74, Strawberry Lane, Toyon Drive, and Palm Hill Drive provide access to hillside private properties.

Sidewalks exist intermittently throughout the project area on the north and south sides of SR-74. These sidewalks begin outside the western limits of the project.

1.1. Project History

The Project Study Report (PSR) was approved on December 15, 1997. The PSR Project Limits were from Via Cordova to the La Pata/Antonio intersection. The decision to extend the PSR Project Limits to Calle Entradero was made in order to



LSA

FIGURE 1

N

0 1,000 2,000
FEET

Lower SR-74 Widening Project

Regional Location Map

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086900

SOURCE: USGS 7.5' QUAD - SAN JUAN CAPISTRANO ('81), CANADA GOBERNADORA ('88), CALIF.

I:\CDT0801B\GIS\Figure1_NES.mxd (3/12/2008)

provide 5 ft shoulders and to create continuity of two lanes on the eastbound and westbound sides of SR-74.

SR-74 was constructed circa 1930/32 from plans prepared for Joint Highway District 15. The road was originally designed to be two lanes, with each lane 31 ft wide with a maximum grade of 6 percent, for vehicle speeds of 25 miles per hour (mph) to 40 mph. In 1959, this route was included within the State Freeway and Expressway System.

Currently, SR-74 in its entirety provides interregional access between south Orange County and Riverside County. This particular section of SR-74 serves commuter traffic from the adjacent residential communities, Riverside County, and interregional recreational traffic. The highway alignment follows and crosses San Juan Creek to the north. During weekday morning and afternoon peak operating hours, commuters who travel from Riverside County to southern Orange County commonly use SR-74. Recreational traffic is common during the weekends.

A scoping document was sent to interested parties and agencies on February 18, 2000. Also, an informal scoping meeting was held on July 19, 2000, from 6:00 p.m. to 8:00 p.m. in the multipurpose room of Ambuehl Elementary School, 28001 San Juan Creek Road, in the City of San Juan Capistrano. Several issues were raised such as increased noise impacts, sound barriers, and traffic noise.

In 2004, the Department provided conceptual design plans to the City for its input. At that time, the design plans proposed to construct approximately 1,500 linear ft of 12 to 15 ft high concrete retaining walls along the north side of SR-74 and about 3,400 linear ft of approximately 16 ft high masonry sound walls along the south side to allow for widening to two lanes on each side. Based on input from the City, the roadway design was modified to provide for views of the San Juan Canyon and the Santa Ana Mountain ridgelines and enhances the rural character of the roadway, consistent with goals of the *City of San Juan Capistrano General Plan*.

These designs were further refined by the Department and project plans were developed for the widening of SR-74 from 98 ft east of Via Cordova from the existing two lanes to four lanes, 1,411 ft east of La Pata Road. An Initial Study with proposed Mitigated Negative Declaration (IS/MND) was circulated in July 2007 that addressed the environmental effects of the proposed widening, and a public meeting was conducted the same month. At this meeting, the Department shared the

conclusions of the IS/MND with the public to seek comments and ideas regarding the alternatives presented in this document.

Subsequent to the public review period, the project elements were modified. The County of Orange prepared the Ranch Plan Final Program Environmental Impact Report (FEIR) 589 (November 2004) and an Addendum to FEIR 589 (July 2006) that included evaluations of the widening of SR-74 from the City/County line to the east of the San Antonio/La Pata intersection (County portion). In addition, two other environmental documents have been prepared by the County and resource agencies for subregional planning programs that have incorporated the widening of SR-74 in their assumptions. Since an environmental document was already prepared that analyzed the County portions, the Project Development Team (PDT), a group consisting of the Department, City, environmental consultants, and engineering consultants determined that the Department must only prepare an environmental document for the City portions from Calle Entradero to the City/County line. Hence, the Project Limits for this environmental document are from Calle Entradero to the City/County line. The preliminary project plans are included in Appendix A – Preliminary Design Layouts.

As a result of the previous meetings, consultations, and the nature of the public comments received on the IS/MND, the Department decided that an Environmental Impact Report (EIR) would be prepared to analyze the environmental impacts for the proposed SR-74 widening from Calle Entradero (PM 1.0) to the City/County limits. A Notice of Preparation was circulated for public review for a 30-day period from January 18 to February 19, 2008.

The widening of SR-74 is included in the Southern California Association of Governments (SCAG) 2004 Regional Transportation Plan (RTP), as amended, and is listed under State Highway Projects on page 11 (Project ID ORA120535) of the 2006 Regional Transportation Improvement Program (RTIP). It is listed as follows: “SAN JUAN CAPISTRANO- ORTEGA HIGHWAY WIDENING (FROM CALLE ENTRADERO TO ANTONIO PARKWAY; FRM 2 TO 4 LANES DIVIDED).” The description of the project in the 2006 RTIP is consistent with the portion of the proposed project in the City to the County of Orange limits. As a separate project, SR-74 is being widened, from the City/County limits to Antonio Parkway, by the County of Orange. Projects must be listed in the RTIP in order to acquire funding. The 2006 RTIP lists the project as being privately funded and is part of the 2006 State Transportation Implementation Program (STIP) Augmentation.

1.1.1. Relevant Transportation Planning Documents

The City developed a Circulation Element as part of the General Plan for city planning policies. The plan evaluates the transportation needs of the community within the framework of the planned transportation network of the county, region, and state. The County Master Plan of Arterial Highways and the City designate Ortega Highway as a primary arterial highway, a four-lane divided roadway. In Table C-6 of the City's Circulation Element, the widening of Ortega Highway is planned as a long-range roadway improvement and is to be widened to four lanes, from Via Cordova to the east City limits.

The City has a 2002 Strategic Transportation Plan (STP) that includes the widening of Ortega Highway. The plan evaluated local and regional transportation issues and land development projects to assess the significant traffic impacts on the City's streets and State highways.

"The purpose of the STP is to specifically identify community policies related to the implementation of transportation improvements that complement the objectives of: (1) diverting through traffic around the community and (2) effectively managing the traffic that remains." The STP recommends that the primary strategies should be implemented before the secondary strategies are undertaken; however, the City may decide to proceed with the implementation of a project if circumstances warrant it.[1]

1.2. Purpose and Need

1.2.1. Purpose

The purpose of the project is to accomplish the following specific objectives:

- Relieve existing and future traffic congestion and improve the flow of traffic on SR-74.
- Accommodate planned growth and development in the surrounding areas.
- Provide improvements consistent with local planning documents.
- Gap closure

[1] City of San Juan Capistrano, Strategic Transportation Plan, LSA Associates, Inc., September 2002.

The project is a proposed solution to the deficiencies identified in the need statement below.

1.2.2. Need

As previously indicated, SR-74 serves as a key connection route between Orange and Riverside Counties. The closest other roadways that provide this connection are State Route 91 (SR-91), approximately 26 miles to the north, and State Route 76 (SR-76), approximately 32 miles to the south. Both of these facilities are heavily traveled. As a result of the distance to alternative connectors, SR-74 experiences a consistent amount of regional traffic, despite the rural design of much of the roadway. In addition to serving this regional demand, the subject segment of SR-74 also serves as a primary access to the City. Because of topography, SR-74 is one of the few arterial highways within the City that extends to the east substantially beyond I-5.

The need for this project is based on an assessment of the existing and future transportation demand, and current and predicted future traffic on SR-74, as measured by level of service (LOS). LOS is based on the ratio of traffic volume to the design capacity of the facility. It is expressed as a range from LOS A (free traffic flow with low volumes and high speeds, resulting in low densities) to LOS F (traffic volumes that exceed capacity and result in forced-flow operations at low speeds, resulting in high densities). The following discussion addresses existing and forecast traffic demand on SR-74.

1.2.2.1. EXISTING DEFICIENCIES

Increasing traffic on SR-74 has degraded the highway LOS, particularly during the peak hours. The highway experiences between LOS D and LOS E during the a.m. peak hour and LOS D (See Table A) during the p.m. peak period.

The existing SR-74 is four through lanes (two travel lanes in each direction) from I-5 to approximately 330 ft east of Via Cordova, where it transitions to three through lanes and then to two through lanes (one travel lane in each direction). The widening of SR-74 east of the City limits, known as the Lower 74 Widening Project-County Portion, will widen SR-74 to four through lanes from 2,000 ft east of the Antonio Parkway/La Pata Avenue intersection to the San Juan Capistrano City limits. Following construction of the County widening project, SR-74, will be four through lanes both east and west of the limits for the City widening project. Therefore, the two-lane section of SR-74 proposed to be widened to four lanes under the City

Table A Existing and Future Levels of Service (LOS)

Location	Peak Hour	Existing LOS	2035 LOS (No Build)	2035 LOS (Build)
SR-74 west of Via Cordova	AM	**E**	**F**	**C**
	PM	**D**	**F**	**C**
SR-74 west of Via Cristal	AM	**D**	**F**	**C**
	PM	**D**	**F**	**B**
SR-74 west of Avenida Siega	AM	**D**	**F**	**C**
	PM	**D**	**F**	**B**
SR-74 east of Avenida Siega	AM	**D**	**F**	**C**
	PM	**D**	**F**	**B**

Source: *Draft State Route 74 Lower Ortega Highway Widening Traffic Study* (Austin-Foust Associates, April 2008).

widening project is an existing chokepoint that results in traffic congestion as the roadway narrows to two lanes east of Via Cordova. The City widening project would provide a gap closure that would relieve traffic congestion by widening SR-74 to four lanes through the project limits. Following construction of the City widening project, SR-74 would be four through lanes from I-5 to 2,000 ft east of the Antonio Parkway/ La Pata Avenue intersection.

1.2.2.2. PROJECTED DEFICIENCIES

Traffic congestion through the project area is expected to increase with the continued growth in the region. As shown in Table A, by 2035, the LOS on SR-74 is projected to deteriorate to substandard levels. The mainline would operate at LOS F in 2035 in the peak hours if SR-74 is not improved. There would be significant delays, and the operating speed would be less than 35 mph.

1.2.2.3. SOCIAL AND ECONOMIC DEMANDS

A review of the growth projections adopted by SCAG indicates continuing growth in the region that the project serves. The population in the County is expected to increase from 2.8 million in 2000 to over 3.7 million in 2035, an increase of nearly 25 percent. Growth in Riverside County is projected to increase from 1.5 million in 2000 (United States Census Bureau 2000) to 3.6 million in 2035 (Riverside County Projection 2006), an increase of 140 percent. This regional growth will continue to place a high demand on SR-74.

1.3. Project Description

This section describes the Proposed Action, including the two build alternatives that were developed to achieve the project purpose and need while avoiding or

minimizing environmental impacts. The proposed project would widen SR-74 by adding one through lane in each direction, east- and westbound from Calle Entradero to the City/County line. This report has evaluated two Build Alternatives: Alternative 1, Northside widening, eliminating existing sidewalk, north of SR-74; Alternative 2, Northside widening, a straight sidewalk replacement, north of SR-74; as well as the No Build Alternative. The permanent and temporary impact area footprints for each of the Build Alternatives are essentially identical. Therefore, impacts to biological resources are anticipated to be the same regardless of which alternative is selected. No impacts to biological resources are anticipated with the No Build Alternative, since the No Build Alternative would not change existing conditions.

1.3.1. Common Features of the Build Alternatives

The following project features are common design elements for both of the Build Alternatives.

1.3.1.1. HIGHWAY WIDENING

Currently, there are two 12 ft general purpose lanes in each direction and no median throughout the project area. Both Build Alternatives would widen SR-74 primarily on the north side to minimize removal of mature trees and to avoid removal of the existing sidewalk on the south side of SR-74. These alternatives would result in the roadbed changing from the current varying width of 62.3 ft at Calle Entradero and 24.6 ft at the City/County Line to a width varying from 78 ft to 79 ft, including lanes, shoulders, and median. Both Build Alternatives would provide one additional 12 ft wide general purpose lane in each direction, as well as a 12 ft wide painted median. A 5 ft wide paved shoulder would be provided on each side of the roadway to accommodate Class II (striped on-road) bicycle facilities, except from Avenida Siega to the City/County limits, where the shoulder would transition to an 8 ft wide shoulder to merge with the County portion of the project. The edge of the pavement would have concrete curbs on each side of the roadway. The proposed additional lanes, shoulders, median, drainages, and sidewalk have been developed consistent with the standards in the Department's Highway Design Manual.

1.3.1.2. INTERSECTION IMPROVEMENTS

There are five roadways that intersect with SR-74 from the south within the Project Limits: Calle Entradero, Via Cordova, Via Cristal, Via Errecarte, and Avenida Siega, as shown in Figure 1, Regional Location Map. North of SR-74, Via Cordova becomes

Hunt Club Drive, and Avenida Siega becomes Shade Tree Lane. Additionally, to the north, Palm Hill Drive and Toyon Drive provide access to private property. Each intersection would be modified/widened to accommodate the additional lanes, median, and shoulders. At intersections where there are existing right-turn pockets (Via Cordova and Via Cristal), the right-turn pocket would remain (Appendix A – Preliminary Design Layouts). No new intersections are proposed.

1.3.1.3. DRIVEWAYS

On the north side of SR-74 within the Project Limits, there are 11 existing driveways. Each of the 11 driveways would be modified to meet the grade of the widened roadway and to include reconstruction of the curb return. These driveway modifications would be designed in order to maintain sight distance and to avoid safety issues. Along the south side east of the Project Limits, there are currently two paved driveways. These would be paved and modified to be compliant with the Americans with Disabilities Act (ADA). No new driveways are proposed.

Alternatives 1 and 2 would construct a retaining wall that would prevent access to SR-74 from an existing unpaved driveway located east of Shade Tree Lane and approximately 300 ft west of the City/County limits. When this parcel was subdivided, the vehicular access rights were relinquished with City approval. Additionally, this driveway is nonoperational for residential use due to its steep slope and unpaved condition.

1.3.1.4. PEDESTRIAN AND BICYCLE FACILITIES

The existing sidewalk on the south side of SR-74 would be maintained in its current location with the exception of a portion of sidewalk at the intersection of Via Cordova, where the sidewalk would be shifted to the south and reconstructed to provide for the right-turn pocket at this intersection. A new sidewalk would be constructed to the east beyond Avenida Siega and would connect to the planned County sidewalk system to provide continuity (Appendix A – Preliminary Design Layouts).

Class II bicycle facilities are planned and would be provided on each side of the roadway as part of the 5 ft wide paved shoulders throughout the Project Limits. These facilities would be in conformance with the Orange County Transportation Authority (OCTA) Commuters Bikeways Strategic Plan (CBSP). The City's General Plan states in its Circulation Element that there is the need to promote an extensive public

bicycle, pedestrian, and equestrian trails network. These bicycle facilities would comply with the City's goals.

1.3.1.5. RIGHT-OF-WAY ACQUISITIONS

The project would require sliver acquisitions from approximately 10 parcels adjacent to SR-74. No displacements or relocations would be required.

1.3.1.6. CUT AND FILL

The roadway widening within the project limits would require cut slopes approximately 20 ft deep on the south side of SR-74 east of Via Cordova and between Via Cristal and Via Errecarte and a 700 ft long fill slope east of Avenida Siega up to 8 ft high. The designed cut slopes on the north side of SR-74 would require buttress keyways approximately 3 to 5 ft deep by 15 ft wide.

1.3.1.7. DRAINAGE IMPROVEMENTS

Since most of the widening would occur on the north side of SR-74, all existing drainage facilities would be modified and extended to intercept flows at the proposed edge of pavement. An additional 10 drainage culverts would be added on the north side of SR-74 throughout the project limits. There would be no drainage systems added to the south side. However, existing drainage on the south side from Avenida Siega, where widening would occur to the City/County line, would be modified to intercept flows at the proposed edge of pavement.

1.3.1.8. RETAINING WALLS

There are five retaining walls on the north side of SR-74 under consideration, all of which will be designed to meet Department Division of Structures requirements. They are:

- A 160 ft long, 2 to 16 ft high retaining wall on the north side of Palm Hill Drive
- A 560 ft long, 2 to 20 ft high retaining wall from Palm Hill Drive to an access road
- A 100 ft long, 2 to 10 ft high retaining wall just east of the abovementioned access road
- A 280 ft long, 2 to 14 ft high retaining wall between Toyon Drive and an access road
- A 960 ft long, 8 to 24 ft high retaining wall between Shade Tree Lane to the City/ County limits

The wall type will be finalized during the design phase.

1.3.1.9. SOUND WALLS

The noise study recommended noise abatement measures to protect the residences on the south side of SR-74. Two sound walls are in common for the Build Alternatives. They are:

- A 747 ft long, maximum 16 ft high sound wall on the south side of SR-74 from Via Cordova to Via Cristal
- A 1,228 ft long, maximum 16 ft high sound wall on the south side of SR-74 from Via Cristal to Via Errecarte

Both sound walls would follow the alignment of the existing garden wall, and construction would occur from the highway side, thereby requiring minimal removal of existing vegetation. The height of the sound walls would be 14 ft. In a letter, the City assured the Department that the City would fund the construction and maintenance of the sound walls where the cost exceeded Department standard cost allocations.

There are two design variations for the sound walls: Plexiglas® walls and Sound Fighter® walls. The use of Plexiglas® panels would maintain the existing views of the southerly hills and San Juan Creek Valley and would provide light and transparency for the adjacent properties. The Plexiglas® walls would be built on steel beams immediately in front of the existing garden walls and would have precast panels at the bottom of the Plexiglas® wall; the existing garden walls would not be exposed. The Sound Fighter® walls would eliminate potential reflective noise to the residents on the north side from the implementation of the sound walls on the south side of SR-74. These walls would be constructed similar to the Plexiglas® walls but would be opaque.

1.3.1.10. SIGNALS AND LIGHTING

Currently, there are no traffic signals within the project limits. This project does not warrant any signals at the existing intersections (see Intersection Improvements above for details). However, in the future should there be a need for a signal/pedestrian crossing, the current design does not preclude the opportunity to install a signal. All streetlights affected by the widening of SR-74 would be relocated and replaced in kind.

1.3.1.11. UTILITIES

All utilities such as power, gas, sewer, and telephone lines impacted by this project would be relocated or replaced in kind within the project limits.

1.3.1.12. LANDSCAPING

North of SR-74, in locations where retaining walls are proposed, new landscaping is proposed in front of the retaining walls. This proposed landscaping, with input from the City, would be designed to blend with the natural environment. South of SR-74, the type of sound wall would be determined during final design and would be selected to result in minimal construction disturbance to reduce vegetation removal. Any vegetation that is removed south of SR-74 would be replaced with vegetation where there is available space within the project limits and in coordination with the City.

Both of the Build Alternatives would result in impacts that would require the eventual removal of approximately 111 trees from the north and south sides of SR-74. A tree removal permit would be obtained from the City for removal of these trees and for mitigation. Department guidelines do not allow replacement trees to be placed within the clear recovery zone of the traveled way (30 ft from the travel lane for speeds posted above 35 mph). To the extent feasible, replacement trees would be planted within the project limits or in the project vicinity.

1.3.1.13. PAVEMENT REHABILITATION

The project would also rehabilitate the existing pavement. The remaining existing pavement would be ground and overlaid with new asphalt concrete (AC) pavement to provide adequate strength to accommodate the projected traffic demand.

1.3.1.14. CONSTRUCTION

Construction for this project is expected to start in the fall of 2011 and be completed in the fall of 2013. No area is available within the project limits for exclusive use by the contractor. The highway right-of-way shall be used only for the purposes that are necessary to perform the required work.

1.3.2. Unique Features of Build Alternatives

1.3.2.1. BUILD ALTERNATIVE 1

Build Alternative 1 would remove the existing meandering sidewalk on the north side of SR-74, east of Calle Entradero. This alternative would widen SR-74 on the north side to avoid reconstructing the south side sidewalk.

1.3.2.2. BUILD ALTERNATIVE 2

Highway Widening

The existing sidewalk on the north side of SR-74 between Calle Entradero and Via Cordova would be reconstructed to the north. The existing meandering sidewalk

would be reconstructed as a straight sidewalk (not curvilinear) within the existing public right-of-way.

Retaining Walls

In addition to the five retaining walls discussed above, two additional short retaining walls would be constructed north of the reconstructed sidewalk along the south edge of the existing equestrian trail.

1.3.2.3. NO BUILD ALTERNATIVE

The No Build Alternative would not include any improvements to the project and would result in LOS F operating conditions for the mainline, as shown in Table 1.3.2.A. SR-74 traffic would flow at less than 35 mph and result in significant delays. SR-74 would be maintained in its existing two-lane condition and would continue to be used by commuters, recreation traffic, and commercial trucks. The No Build Alternative is not consistent with regional and local transportation plans, would not alleviate existing and projected congestion in the study area, and would not meet the project purpose and need. The No Build Alternative provides a baseline for comparing the effects associated with the Build Alternatives since the environmental document must consider the effects of not implementing the project.

Chapter 2. Study Methods

In support of the EIR that is being prepared for the proposed project, and to address the current construction plan, the Department decided to update the previously conducted fieldwork, including vegetation mapping, delineation of potentially jurisdictional wetlands and waters, and floral and faunal inventories. In addition, fieldwork in response to comments received during public review of the Draft IS/MND, including focused surveys for special-status plant species, was also conducted. Flora and fauna observed during the 2008 surveys are listed in Appendix B.

In order to prepare this NES Supplement, prior to conducting fieldwork, biologists requested an updated species list from the USFWS, and queried the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Online Inventory to determine if any additional species should be considered. This NES Supplement also addresses all of the species considered in the 2007 NES.

The Biological Study Area (BSA) encompasses the maximum limits of disturbance and a 25 to 35 ft buffer. Where the buffer area includes private property, areas were assessed visually from within the right-of-way where feasible, but were not surveyed on foot. Areas beyond solid walls, fences, or stands of dense vegetation were not assessed. The BSA extends along SR-74 from the intersection of Calle Entradero to the City limits at the County line.

The 2007 NES concluded that protocol-level surveys for federally and State-listed as threatened and endangered species were not warranted, due to a lack of suitable habitat within the BSA and based on negative survey results in nearby areas. The literature review and consultation conducted for this NES Supplement confirmed this conclusion, and no protocol surveys were conducted. Areas within the BSA that contained potentially suitable habitat for special-status plant species were surveyed and evaluated in April 2008 at a time when most plants with the potential to occur would have been detectable. Landscaped and developed areas comprise the majority of the vegetation within the BSA; these areas are not suitable for special-status plants. The areas surveyed for special-status plants were limited to areas of ruderal and disturbed vegetation primarily along the north side of SR-74 in the eastern half of the BSA.

Biologists conducted a jurisdictional delineation on May 1, 2008, according to CDFG guidelines and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Regional Supplement) (United States Army Corps of Engineers [Corps] 2006) and the *Corps of Engineers 1987 Wetland Delineation Manual* (1987 Manual) (Environmental Laboratory 1987). Where there are differences between the two documents, the Regional Supplement takes precedence over the 1987 Manual. The wetland delineation report is included as Appendix C.

2.1. Regulatory Requirements

The 2007 NES provides extensive information regarding applicable planning documents, including The Ranch Plan EIR/General Plan Amendment (GPA)/Zone Change (ZC) No. 589, an Addendum to the Ranch Plan EIR No. 589, the Draft Environmental Impact Statement (EIS) San Juan Creek and Western San Mateo Creek Watershed Special Area Management Plan (SAMP), and the Joint Programmatic EIR/EIS and Draft Implementing Agreement (IA) for the Southern Subregion Natural Community Conservation Plan (NCCP)/Master Streambed Alteration Agreement (MSAA)/Habitat Conservation Plan (HCP). It also includes a discussion of Regional Water Quality Control Board (RWQCB) consideration of approvals relating to The Ranch Planning Area 1. The 2007 NES specifies that the the Department will be responsible for preparing resource agency permits for the proposed project per the SAMP and MSAA/HCP agreements and guidelines, and will be responsible for mitigation and monitoring commitments for impacts to biological resources.

The following discussion provides supplemental information for the 2007 NES that addresses general regulatory requirements and provides a discussion of recent legal decisions that may affect the regulatory setting. Regulatory information provided in the 2007 NES is not duplicated in this supplement.

2.1.1. United States Army Corps of Engineers

The Corps jurisdiction pursuant to Section 404 of the federal Clean Water Act (CWA) regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and nonwetland bodies of water that meet specific criteria as outlined in the guidelines provided in the Corps 1987 Manual and

founded on a connection, or nexus, between the water body in question and interstate commerce. The following definition of waters of the U.S. is taken from the discussion provided at 33 CFR 328.3:

"The term waters of the United States means:

> (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce . . . ;
>
> (2) All interstate waters including interstate wetlands;
>
> (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams) . . . the use, degradation or destruction of which could affect interstate or foreign commerce . . . ;
>
> (4) All impoundments of waters otherwise defined as waters of the United States under the definition; and
>
> (5) Tributaries of waters defined in paragraphs (a) (1)–(4) of this section."

The Corps and Environmental Protection Agency (EPA) define wetlands as follows:

> "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions."

In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied.

In 2006, the United States Supreme Court further considered the Corps jurisdiction of "waters of the United States" in the consolidated cases Rapanos v. United States and Carabell v. United States (126 S. Ct. 2208), collectively referred to as Rapanos. The Supreme Court concluded that wetlands are "waters of the United States" if they significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as navigable. On June 5, 2007, the Corps issued guidance regarding the Rapanos decision. This guidance states that the Corps will

continue to assert jurisdiction over traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent nonnavigable tributaries that have a continuous flow at least seasonally (typically three months), and wetlands that directly abut relatively permanent tributaries. The Corps will determine jurisdiction over waters that are nonnavigable tributaries that are not relatively permanent and wetlands adjacent to nonnavigable tributaries that are not relatively permanent only after making a significant nexus finding.

Furthermore, the preamble to Corps regulations (Preamble Section 328.3, Definitions) states that the Corps does not generally consider the following waters to be waters of the U.S. The Corps does, however, reserve the right to regulate these waters on a case-by-case basis.

- Nontidal drainage and irrigation ditches excavated on dry land
- Artificially irrigated areas that would revert to upland if the irrigation ceased
- Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing
- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons
- Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for purposes of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.

Waters found to be isolated and not subject to CWA regulation are often still regulated by the RWQCB under the State Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

2.1.2. Regional Water Quality Control Board

The RWQCB has regulatory authority over waters of the United States pursuant to Section 401 of the CWA and waters of the State pursuant to the Porter-Cologne Act. The Corps cannot issue authorization for fill or discharge into waters of the U.S. without a Certification of Water Quality from the RWQCB. Additionally, isolated nonnavigable waters and wetlands excluded from Corps jurisdiction are subject to RWQCB authority as waters of the State, and any discharge of waste (the RWQCB

considers fill to be waste) may require a Report of Waste Discharge and may be subject to Waste Discharge Requirements by the RWQCB.

The RWQCB can require mitigation measures above and beyond those required by the Corps or CDFG. However, typically the mitigation proposed to satisfy the Corps and CDFG meets RWQCB requirements to offset impacts to water quality.

2.1.3. United States Fish and Wildlife Service (USFWS)

The Federal Endangered Species Act (FESA) of 1973 sets forth a two-tiered classification scheme based on the biological health of a species. Endangered species are those in danger of becoming extinct throughout all or a significant portion of their range. Threatened species are those likely to become endangered in the foreseeable future; Special Rules under Section 4(d) can be made to address threatened species. Ultimately, the FESA attempts to bring populations of listed species to healthy levels so that they no longer need special protection.

The FESA defines "critical habitat" as those geographical areas: (1) that are essential for bringing an endangered or threatened species to the point where it no longer needs the legal protections of the FESA; and (2) that may require special management considerations or protection. In other words, the critical habitat consists of those areas that must be managed to permit an endangered or threatened species to recover to a level where it is safe, for the foreseeable future, from the danger of extinction. Critical habitat areas may require special management considerations or protections.

Section 9 of the FESA prohibits the "take" of listed species by anyone unless authorized by the USFWS. Take is defined as "conduct which attempts or results in the killing, harming, or harassing of a listed species." Harm is defined as "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering." Harassment is defined as an "intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding, or sheltering." Therefore, in order to comply with the FESA, any proposed project should be assessed prior to construction to determine whether the project will impact listed species or, in the case of a federal action on the project, designated critical habitats. If no federal action is associated with the proposed project, and the project will result in take of listed species, authorization from the USFWS in the form of a

Section 10(a) take permit and an accompanying HCP are required. If a federal action exists and the project may impact listed species or designated critical habitat, then consultation with the USFWS is required. That consultation can result in an incidental take authorization through a biological opinion.

2.1.4. California Department of Fish and Game

The CDFG, through Section 1602 of the California Fish and Game Code, is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks and at least an intermittent flow of water.

CDFG regulates wetland areas only to the extent that those wetlands are a part of a river, stream, or lake as defined by CDFG. While seasonal ponds are within the CDFG definition of wetlands, if they are not associated with a river, stream, or lake, they are not subject to jurisdiction of CDFG under Section 1602 of the Fish and Game Code.

The California Endangered Species Act (CESA; State Fish and Game Code Sections 2050–2098) was signed into law in 1984. It was intended to parallel the federal law. The CESA prohibits the unauthorized "take" of species listed as threatened or endangered under its provisions. However, a significant difference exists in the CESA definition of "take," which is limited to actually or attempting to "hunt, pursue, capture, or kill." CESA provisions for authorization of incidental take include consultation with a State agency, board, or commission that is also a State Lead Agency pursuant to CEQA; authorization of other entities through a 2081 permit; or adoption of a federal incidental take authorization pursuant to Section 2081.1. Similar to the federal act, actions in compliance with the measures specified as a result of the consultation process or 2081 permit are not prohibited.

2.1.5. Nesting Birds

The federal Migratory Bird Treaty Act (MBTA) regulations and portions of the California Fish and Game Code prohibit the "take" of nearly all native bird species and their nests. While these laws and regulations were originally intended to control the intentional take of birds and/or their eggs and nests by collectors, falconers, etc., they can nevertheless be applied to unintentional take (e.g., destroying an active nest

by cutting down a tree). It is rarely possible to obtain a permit for relocating or removing a nest.

2.1.6. Natural Community Conservation Plans

In an effort to respond to growing concern over the conservation of coastal sage scrub and other biological communities, federal, State, and local agencies have developed a multispecies approach to habitat conservation planning known as the Natural Communities Conservation Planning process. This was made possible by legislation (Assembly Bill 2172) that authorized the CDFG to enter into agreements for the preparation and implementation of NCCPs. The USFWS joined in this effort, utilizing both the Section 4(d) Special Rule and the HCP processes.

The goal of this NCCP program is to identify significantly important coastal sage scrub habitat and to develop ways and means to preserve and/or restore the ecological value of this and associated plant communities and their attendant sensitive species in a rapidly urbanizing setting.

2.1.7. Tree Preservation Ordinance/Tree Removal Permit

The City has adopted a Tree Preservation Ordinance (City Municipal Code, Title 9, Chapter 3, Section 9-3.557), and regulates removal of trees through the Tree Removal Permit process (outlined in City Municipal Code, Title 9, Chapter 2, Section 9-2.349). The City defines “tree” as “any living woody perennial plant having a trunk diameter greater than six (6) inches, measured at a point three (3) ft above the ground.” The tree preservation ordinance provides for the preservation and maintenance of existing trees within the City while permitting reasonable use and development of properties containing such trees, as well as the reasonable trimming and maintenance of such trees. The Tree Removal Permit is a discretionary permit issued by the City and is required for any tree removal that is not the result of an emergency or related to orchard operations. The City typically requires tree replacement with trees of similar size as compensation for tree removal.

2.2. Studies Required

To update the 2007 NES, biologists conducted vegetation mapping, a routine jurisdictional delineation, a general wildlife inventory, and special status plant

surveys. No protocol-level focused surveys for federally or state-listed as threatened or endangered species are required.

2.3. Personnel and Survey Dates

Biologists Dan Rosie and Adrianne Beazley visited the site with Department personnel on March 10, 2008, and conducted general reconnaissance surveys of the project alignment. On April 23, 2008, biologists Mike Trotta and Adrianne Beazley conducted vegetation mapping, an assessment of potentially jurisdictional waters and wetlands, a wildlife inventory, and focused plant surveys in suitable habitat. On May 1, 2008, biologists Dan Rosie and Elizabeth Delk conducted a delineation of jurisdictional waters and wetlands.

2.4. Agency Coordination and Professional Contacts

Biologist Adrianne Beazley contacted the USFWS to request an update to the species list. Sally Brown of the USFWS replied to indicate that the original list provided for the 2007 NES was still accurate, with the exception that USFWS-designated "critical habitat" for the coastal California gnatcatcher is no longer present within the BSA. The original species list and electronic correspondence are included as Appendix D.

Biologist Mike Trotta contacted Stephanie Hall at the Corps on May 28, 2008, and discussed the fact that the results of the routine jurisdictional delineation concluded that the area potentially subject to Corps jurisdiction was reduced from the previous cursory findings. Mr. Trotta also contacted Naeem Siddiqui of CDFG on May 29, 2008, to discuss the findings and confirm that the routine delineation will be adequate to document the quantity of jurisdictional streambed on the site. The results of the consultations are described further in Section 5.4.

It is anticipated that the Corps would be able to authorize the proposed activities pursuant to Section 404 of the CWA under the terms of NWP 14 for Linear Transportation Projects or the by issuing a Letter of Permission (LOP) in accordance with the SAMP, and that the CDFG would issue a Lake or Streambed Alteration Agreement pursuant to Section 1600 et seq of the California Fish and Game Code. The Corps will require a CWA Section 401 Certification of Water Quality or Waiver from the RWQCB before it can authorize activities pursuant to Section 404 of the CWA.

2.5. Limitations That May Influence Results

The BSA includes a 25 to 35 ft buffer around the area of impact. In many areas, the buffer includes private property outside of the SR-74 right-of-way. Biologists did not access private property outside of the Department and City right-of-way. Wherever feasible, a visual assessment of the adjacent properties was conducted in the field; however, in areas where a wall, solid fence, or dense vegetation was present, it was not possible to assess adjacent properties.

Due to the noise levels along SR-74, it is likely that more secretive avian species that would normally be detectable by vocalizations rather than by visual identification were not identified during the wildlife surveys. However, special-status species with the potential to occur within the BSA are evaluated regardless of whether they were observed during surveys.

Chapter 3. Results: Environmental Setting

The 2007 NES characterizes the environmental setting surrounding the BSA. Since the preparation of the 2007 NES, no major changes have occurred with respect to the regional physical and biological conditions. Therefore, only supplemental information provided with respect to these topics exclusively addresses the areas within the BSA. The BSA for this study is substantially similar to the BSA identified in the 2007 NES; however, the BSA for this study includes a 25 to 35 ft buffer around the impact area and therefore comprises a slightly larger area.

3.1. Description of Biological Conditions

3.1.1. Vegetation

The vegetation communities identified and mapped within the BSA correspond to the communities identified in the 2007 NES. Specifically, 8.29 acres (ac) of developed areas, 8.33 ac of ornamental vegetation, 2.68 ac of ruderal vegetation, and 0.04 ac of disturbed wetlands were mapped, as illustrated in Figure 2. The 2007 NES identified large coast live oak *(Quercus agrifolia*) and western sycamore *(Platanus racemosa*) trees within the project limits as being essential to raptors for roosting and nesting sites. However, based on observations during the surveys conducted in 2008, biologists concluded that while raptors may use the trees within the BSA for roosting and nesting, the trees outside of the BSA that are further from SR-74 and upslope would be more likely to be used for roosting and nesting resources by local raptor populations. Vegetation communities mapped within the BSA are shown in Figure 2.

3.1.2. Jurisdictional Areas

A delineation of potentially jurisdictional waters and wetlands was conducted and is included as Appendix C. This delineation concluded that the areas potentially subject to Corps and CDFG jurisdiction associated with the areas identified as Drainage System (DS) 7, 8, and 10 are substantially smaller than identified in the 2007 NES. The 2007 NES indicated that the permanent impacts to potentially jurisdictional areas would total 0.134 ac (0.052 ac in DS 7, 0.033 ac in DS 8, and 0.049 ac within DS 10). Based on the jurisdictional delineation conducted in 2008, permanent impacts to

LEGEND

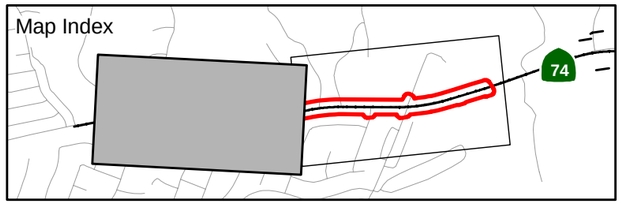
- Biological Study Area
- Permanent Impact Area
- Temporary Impact Area
- Proposed Project Features

Vegetation

- Developed
- Disturbed Wetlands
- Ornamental
- Ruderal

- Photograph Location
- City Boundary

0 75 150 Feet



SOURCE: Air Photo USA (2007), HDR Engineering (2007), SCAG (2005), Thomas Bros (2007).

I:\CDT0802\GIS\VegMap.mxd (5/21/2008)

FIGURE 2

Sheet 1 of 2

Lower SR-74 Widening Project

Vegetation Communities and Photograph Locations

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)

EA# 086920

LEGEND

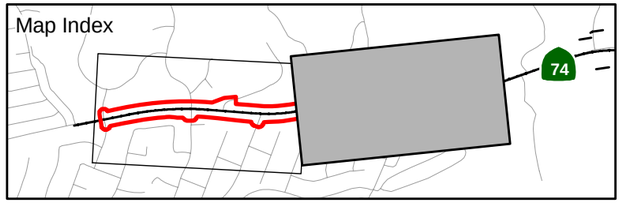
- Biological Study Area
- Permanent Impact Area
- Temporary Impact Area
- Proposed Project Features

Vegetation

- Developed
- Disturbed Wetlands
- Ornamental
- Ruderal

- Photograph Location
- City Boundary

0 75 150 Feet



SOURCE: Air Photo USA (2007), HDR Engineering (2007), SCAG (2005), Thomas Bros (2007).

I:\CDT0802\GIS\VegMap.mxd (5/21/2008)

FIGURE 2

Sheet 2 of 2

Lower SR-74 Widening Project

Vegetation Communities and Photograph Locations

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)

EA# 086920

potentially jurisdictional areas total 0.058 ac to Corps waters of the United States and 0.098 ac to CDFG streambed. Potentially jurisdictional areas within the BSA are shown in Figure 3. Features A, B, and C evaluated in Appendix C, and depicted in Figure 3, correspond to DS 7, 8, and 9, respectively.

3.1.3. Invasive Species

The 2007 NES identified iceplant *(Carpobrotus edulis)* and nonnative grasses as invasive plant species occurring within the BSA. The iceplant occurs in an approximately 30 ft by 30 ft square along the north side of the highway. Other species, including purple (African) fountain grass *(Pennisetum setaceum),* Mexican feather grass *(Stipa tenuissima),* wild oat (*Avena* sp.), castor bean *(Ricinus communis),* bougainvillea (*Bougainvillea* sp.), rip gut grass *(Bromus diandrus),* foxtail chess *(Bromus madritensis),* and telegraph weed[1] *(Heterotheca grandiflora)* were identified in the 2007 NES as other nonnative species occurring within the BSA. Some of these species are not considered to be invasive species. Black mustard *(Brassica* sp. [c.f. *Brassica nigra*]*)*, thistle (*Carduus* sp.), cheeseweed *(Malva parvifolia),* pampas grass *(Cortaderia selloana),* and eucalyptus (*Eucalyptus* sp.) were also listed as occurring within the BSA.

Studies conducted in 2008 included reviewing the applicable lists of invasive plant species in California and comparing them to the species observed within the BSA during surveys. The following invasive plant species were identified within the BSA: sowthistle (*Sonchus* sp.),[2] knotweed (*Polygonum* sp.), Russian thistle *(Salsola tragus),* Bermuda grass *(Cynodon dactylon),* iceplant (in the same location as identified in the 2007 NES), pampas grass, eucalyptus, wild fennel *(Foeniculum vulgare),* African fountain grass, Australian saltbush *(Atriplex semibaccata),* mustard (*Brassica* sp.), black mustard *(Brassica nigra*), myoporum *(Myoporum laetum),* olive *(Olea europaea),* castor bean, Peruvian pepper tree *(Schinus molle),* Brazilian pepper *(Schinus terebinthifolius),* bristly ox-tongue *(Picris echioides),* garland

[1] Telegraph weed is native to California. Therefore, its inclusion on the list of nonnative species in the 2007 NES is presumed to be a typographical error.

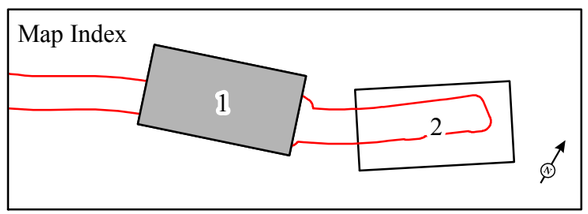
[2] Perennial sowthistle *(Sonchus arvensis)* is considered a noxious weed. The sowthistle within the BSA was not identified to species level and may be perennial sowthistle.

LEGEND

- Biological Study Area
- Wetland Waters of the U.S.
- Nonwetland Waters of the U.S.
- CDFG Jurisdiction
- Sheetflow (Nonjurisdictional)
- 18" Culvert
- Proposed Project Features
- City Boundary
- Permanent Impact Area
- Temporary Impact Area

0 25 50 Feet

Map Index



SOURCE:Air Photo USA (2007), Thomas Bros (2007).

I:\CDT0802\GIS\JD_forNES.mxd (8/5/2008)

FIGURE 3
Sheet 1 of 2

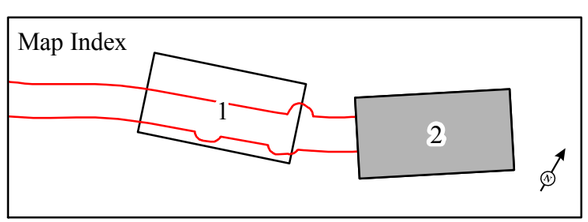
Lower SR-74 Widening Project
Potential CDFG and Corps Jurisdiction
12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

LEGEND

- Biological Study Area
- Wetland Waters of the U.S.
- Nonwetland Waters of the U.S.
- CDFG Jurisdiction
- Sheetflow (Nonjurisdictional)
- 18" Culvert
- Proposed Project Features
- City Boundary
- Permanent Impact Area
- Temporary Impact Area

0 25 50 Feet

Map Index



SOURCE:Air Photo USA (2007), Thomas Bros (2007).

I:\CDT0802\GIS\JD_forNES.mxd (8/5/2008)

FIGURE 3

Sheet 2 of 2

Lower SR-74 Widening Project

Potential CDFG and Corps Jurisdiction

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)

EA# 086920

chrysanthemum *(Chrysanthemum coronarium),* redstem stork's bill *(Erodium cicutarium),* wild barley (*Hordeum* sp.), Canary Island date palm *(Phoenix canariensis*), English plantain *(Plantago lanceolata*), and wild radish *(Raphanus sativus).* These invasive species occur primarily within areas mapped as "ruderal" (Figure 2). Eucalyptus, olive, Peruvian, and Brazilian pepper trees and Canary Island date palm also occur within areas mapped as "ornamental"(Figure 2).

No substantial populations of invasive wildlife have been documented in the BSA. House sparrows *(Passer domesticus),* rock pigeons *(Columba livia),* and European starlings *(Sturnus vulgaris),* as well as Virginia opossums *(Didelphis virginiana)* and feral dogs *(Canis lupus familiaris)* and cats *(Felis catus)* are known to occur in urban areas, and they occur throughout Southern California. Eradication of these species from the BSA would have no effect on their distribution locally or in the region. The proposed project would not have a substantial effect on these species.

3.2. Regional Species and Habitats of Concern

Special status species and habitats potentially occurring in the region are discussed below. Table B provides a comprehensive list of special-status plant and wildlife species, based on review of the CNDDB, the CNPS Online Inventory, consultation with the USFWS, and the 2007 NES (which also incorporated the results of other studies). As indicated below, and consistent with the conclusions of the 2007 NES, no suitable habitat is present within the BSA for any of the regional species of concern, and no additional studies are required.

The literature review indicated the potential for southern coast live oak riparian forest, southern cottonwood willow riparian forest, mulefat scrub, willow riparian scrub, and arroyo willow riparian forests to occur within the BSA. The 2007 NES concluded that these vegetation communities are not present within the BSA; fieldwork conducted in 2008 confirmed this conclusion.

Disturbed wetlands are found in association with DS 7 (0.04 ac) ("Feature A" on Figure 3), which is discussed further in the jurisdictional delineation report (Appendix C). This area is the result of either an unidentified seep from the adjacent hillside to the north or an unidentified existing culvert. The presence of a culvert was investigated in the field, but could not be not verified. Therefore, it appears likely that the hydrology is a result of a hillside seep. Vegetation within this area consists of willow *(Salix lasiolepis),* narrow-leaved cat-tail *(Typha latifolia),* and various

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Plants					
Atriplex coulteri	**Coulter's saltbush**	US: – CA: SP CNPS: 1B	Alkaline or clay soils in ocean bluffs and ridgetops; alkaline low places in coastal bluff scrub, coastal dunes, coastal sage scrub; and valley and foothill grasslands below 460 meters (m) (1,500 ft) elevation. In California, known only from Los Angeles, Orange, Santa Barbara, San Bernardino, and San Diego Counties. Reports of this species from Riverside County are based on misidentification of *Atriplex serenana* ssp. *davidsonii* (*The Vascular Plants of Western Riverside County, California*. F. M. Roberts et al., 2004). **Activity period:** Blooms March through October (perennial herb)	Absent	CNPS and CNDDB The Biological Study Area (BSA) contains disturbed land typical of roadside shoulders, landscaped areas, and low-density residential areas (lack of suitable habitat).
Brodiaea filifolia	**Thread-leaved brodiaea**	US: FT CA: SE CNPS: 1B	Clay, loamy sand, or alkaline soils; open grasslands at edges of vernal pools or floodplains. Below 1,220 m (4,000 ft) elevation. Los Angeles, Orange, Riverside, and San Diego Counties; known from about 20 locations. **Activity period:** Blooms March through June (perennial bulb)	Absent	CNPS, CNDDB, USFWS Lack of suitable habitat
Calochortus weedii var. *intermedius*	**Intermediate mariposa lily**	US: – CA: SP CNPS: 1B	Rocky areas in hills with annual grassland and coastal sage scrub. 180 to 855 m (600 to 2,800 ft) elevation. Los Angeles, Orange, and Riverside Counties. In the western Riverside County area, this species is known from the hills and valleys west of Lake Skinner and Vail Lake (The Vascular Plants of Western Riverside County, California. F. M. Roberts et al., 2004). **Activity period:** Blooms June through July	Absent	CNPS, CNDDB Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Centromadia parryi ssp. *australis*	**Southern tarplant**	US: – CA: SP CNPS: 1B	Edges of marshes and swamps, vernal pools, and vernally wet areas in grasslands below 425 m (1,400 ft) elevation. In California, known only from Santa Barbara, Ventura, Los Angeles, Orange, and San Diego Counties. **Activity period:** Blooms May through November	Absent	CNPS Lack of suitable habitat
Chaenactis glabriuscula var. *orcuttiana*	**Orcutt's pincushion**	US: – CA: SP CNPS: 1B	Sandy areas of coastal bluff scrub and coastal sand dunes at elevations from 3 to 100 m (10 to 300 ft). Known from Los Angeles, Orange, San Diego, and Ventura Counties, and Baja California. **Activity period:** Blooms January through August (annual herb)	Absent	CNPS, CNDDB Lack of suitable habitat
Comarostaphylis diversifolia ssp. *diversifolia*	**Summer holly**	US: – CA: SP CNPS: 1B	Evergreen shrub found in chaparral at elevations from 30 to 550 m (100 to 1,800 ft). Known from Orange, Riverside, and San Diego Counties and Baja California. **Activity period:** Blooms April through June (evergreen shrub)	Absent	CNPS, CNDDB Lack of suitable habitat
Pseudognaphalium leucocephalum	**White rabbit-tobacco**	US: – CA: SP CNPS: 2	Sandy and gravelly creek bottoms of the coastal slope below 2,100 m (6,900 ft) elevation. Known in California from Los Angeles, Orange, Riverside, Santa Barbara, San Diego, San Luis Obispo, and Ventura Counties. Also known from Arizona, New Mexico, Texas, and Mexico. **Activity period:** Blooms August through November	Absent	CNPS, CNDDB Lack of suitable habitat
Dudleya multicaulis	**Many-stemmed dudleya**	US: – CA: SP CNPS: 1B	Often on clay soils also around granitic outcrops in chaparral, coastal sage scrub, and grassland; below 790 m (2,600 ft) elevation. Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. **Activity period:** Blooms May through June (perennial herb)	Absent	CNPS, CNDDB Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Dudleya stolonifera	**Laguna Beach dudleya**	US: FT CA: ST CNPS: 1B	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and rocky areas; Orange County; from 10 to 260 m (30 to 850 ft). **Activity period:** Blooms May through July (perennial herb)	Absent	CNPS, CNDDB, USFWS Lack of suitable habitat
Dudleya viscida	**Sticky dudleya**	US: – CA: SP CNPS: 1B	Rocky areas in coastal bluff scrub, chaparral, coastal sage scrub below 550 m (1,800 ft) elevation. Orange and San Diego Counties. **Activity period:** Blooms May through June (perennial herb)	Absent	CNPS Lack of suitable habitat
Euphorbia misera	**Cliff spurge**	US: – CA: SP CNPS: 2	Rocky sites within coastal bluff scrub, coastal sage scrub, and Mojavean desert scrub; known from coastal Orange and San Diego Counties and Riverside County deserts and Baja California; 30 to 500 m (100 to 1,650 ft) elevation. **Activity period:** Blooms December through August	Absent	CNPS, CNDDB Lack of suitable habitat
Hordeum intercedens	**Vernal barley**	US: – CA: SP CNPS: 3	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions) and vernal pools in Los Angeles, Orange, Riverside, Santa Barbara, San Diego, and Ventura Counties; 5 to 1,000 m (20 to 3,300 ft) elevation. **Activity period:** Blooms March through June (annual herb)	Absent	CNPS Lack of suitable habitat.
Imperata brevifolia	**California satintail**	US: - CA: - CNPS: 2	Wet areas and floodplains below 500 m (1,600 ft) elevation. Widespread in California and the western U. S. Also occurs in Mexico. **Activity period:** Blooms September through May (perennial grass)	Absent	CNPS Lack of suitable habitat.

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Nolina cismontana	**Chaparral nolina**	US: – CA: SP CNPS: 1B	Evergreen shrub found in chaparral, coastal sage scrub, sandstone or gabbro; elevations from 140 to 1,275 m (500 to 4,200 ft). Known from Los Angeles, Orange, San Diego, and Ventura Counties. **Activity period:** Blooms May through July; with foliage year-round	Absent	CNPS and CNDDB Lack of suitable habitat.
Quercus dumosa	**Nuttall's scrub oak**	US: - CA: SP CNPS: 1B	On sandy and clay loam soils near the coast within closed-cone coniferous forest, chaparral, and coastal scrub; known from western Orange, Santa Barbara, and San Diego Counties and Baja California; 15 to 400 m (50 to 1,315 ft) elevation. **Activity period:** Blooms February through April (perennial shrub)	Absent	CNPS, CNDDB Lack of suitable habitat
Satureja chandleri	**San Miguel savory**	US: – CA: SP CNPS: 1B	Rocky areas in chaparral or oak woodland or at the margins in coastal sage scrub or grassland, at 110 to 1,210 m (400 to 4,000 ft) elevation. Prefers moist rocky canyons with trees or large shrubs. Known only from Orange, Riverside, and San Diego Counties, and Baja California, Mexico. **Activity period:** Blooms March through May (perennial herb)	Absent	CNPS Lack of suitable habitat
Sidalcea neomexicana	**Salt spring checkerbloom**	US: – CA: SP CNPS: 2	Alkaline springs and marshes below 1,530 m (5,000 ft) elevation. In California, known only from Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, and Ventura Counties. **Activity period:** Blooms March through June (perennial herb)	Absent	CNPS Lack of suitable habitat
Tetracoccus dioicus	**Parry's tetracoccus**	US: – CA: SP CNPS: 1B	Dry stony slopes in chaparral and coastal sage scrub; Orange, Riverside, and San Diego Counties, and Baja California; from 165 to 1,000 m (500 to 3,300 ft) elevation. **Activity period:** Blooms April through May (perennial shrub)	Absent	CNPS Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Verbesina dissita	**Big-leaved crownbeard**	US: FT CA: ST CNPS: 1B	Maritime chaparral, coastal scrub; Orange County and Baja California; from 45 to 205 m (150 to 670 ft). Known in California from only two occurrences near southern Laguna Beach. **Activity period:** Blooms April through July (perennial herb)	Absent	CNPS, CNDDB, USFWS Lack of suitable habitat
Invertebrates					
Danaus plexippus (wintering sites)	**Monarch butterfly**	US: – CA: SA	Roosts in wind-protected tree groves (eucalyptus, Monterey pine, cypress) near nectar and water sources. **Activity period:** September through March	Absent	CNDDB Lack of suitable habitat
Branchinecta sandiegonensis	**San Diego Fairy Shrimp**	US: FE CA: SA	Endemic to vernal pools in Orange County and San Diego County, California. **Activity period:** Seasonally, following rains in late fall, winter, and spring	Absent	USFWS Lack of suitable habitat
Streptocephalus woottoni	**Riverside fairy shrimp**	US: FE CA: SA	Warm-water vernal pools (i.e., large, deep pools that retain water into the warm season) including artificially created or enhanced pools, such as some stock ponds, that have vernal pool-like hydrology and vegetation. Known from within about 50 miles of Ventura County coast south to San Diego County. **Activity period:** Seasonally following rains; typically January through April	Absent	USFWS Lack of suitable habitat
Fish					
Gila orcutti	**Arroyo chub**	US: – CA: CSC	Perennial streams or intermittent streams with permanent pools; slow water sections of streams with mud or sand substrates; spawning occurs in pools. Native to Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita River systems; introduced in Santa Ynez, Santa Maria, Cuyama, and Mojave River systems and smaller coastal streams. **Activity period:** Year-round	Absent	CNDDB Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Eucyclogobius newberryi	**Tidewater goby**	US: FE CA: CSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon (San Diego County) to the mouth of the Smith River (Del Norte County). Found in shallow lagoons and lower stream reaches. **Activity period:** Year-round	Absent	CNDDB Lack of suitable habitat
Oncorhynchus mykiss	**Southern steelhead**	US: FE CA: SA	Federal listing refers to runs in coastal basins from the Santa Maria River, south to Malibu Creek. **Activity period:** Year-round	Absent	USFWS Lack of suitable habitat
Amphibians					
Spea (=Scaphiopus) hammondii	**Western spadefoot**	US: – CA: CSC	Grasslands and occasionally hardwood woodlands; requires vernal pools (persisting for at least three weeks) for breeding; burrows in loose soils during dry season. Occurs in the Central Valley and adjacent foothills, the nondesert areas of Southern California, and in Baja California, Mexico. **Activity period:** October through April (following onset of winter rains)	Absent	CNDDB Lack of suitable habitat
Arroyo toad	**Bufo californicus**	US: FE CA: CSC	Washes and arroyos with open water; sand or gravel beds; for breeding, pools with sparse overstory vegetation. Coastal and a few desert streams from Santa Barbara County to Baja California. **Activity period:** March through July	Absent	USFWS Lack of suitable habitat
Reptiles					
Emys (=Clemmys) marmorata pallida	**Southwestern pond turtle**	US: – CA: CSC	Inhabits permanent or nearly permanent water below 1,830 m (6,000 ft) from central California, west of the Sierra-Cascade crest south to northwestern Baja California. Absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Requires basking sites such as partially submerged logs, rocks, or open mud banks. **Activity period:** Year-round, with reduced activity November through March	Absent	CNDDB Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Phrynosoma coronatum	**Coast horned lizard**	US: – CA: CSC	Occurs in annual grassland, coastal sage scrub, chaparral, and woodland communities. Prefers open country, especially sandy areas, washes, and floodplains. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants or other insects. Occurs in Siskiyou County, in the Central Valley and adjacent foothills below 1,200 m (4,000 ft) elevation, in coastal areas of central California, and in nondesert areas of southern California below 1,830 m (6,000 ft) elevation, and throughout the Baja California Peninsula. **Activity period:** April through July, with reduced activity August through October	Absent	CNDDB Lack of suitable habitat
Aspidoscelis hyperythra beldingi	**Belding's orange-throated whiptail**	US: – CA: CSC	Prefers chaparral, coastal sage scrub, juniper woodland, and oak woodland from sea level to 915 m (3,000 ft) elevation; inland and coastal valleys of Riverside, Orange, San Diego, and extreme southern San Bernardino Counties, and Baja California. **Activity period:** March through July, with reduced activity August through October	Absent	CNDDB Lack of suitable habitat
Aspidoscelis tigris stejnegeri	**Coastal western whiptail**	US: – CA: SA	Wide variety of habitats, including coastal sage scrub, sparse grassland, and riparian woodland; coastal and inland valleys and foothills; Ventura County to Baja California. **Activity period:** April through August	Absent	CNDDB Lack of suitable habitat
Thamnophis hammondii	**Two-striped garter snake**	US: – CA: CSC	Highly aquatic. Only in or near permanent sources of water. Streams with rocky beds supporting willows or other riparian vegetation. From Monterey County to northwest Baja California. **Activity period:** Diurnal year-round	Absent	CNDDB Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Birds					
Accipiter cooperii (nesting)	**Cooper's hawk**	US: – CA: formerly CSC	Primarily forests and woodlands throughout North America. Increasingly common in urban habitats. Nests in tall trees, especially pines. Occasionally nests in isolated trees in more open areas. **Activity period:** Year-round	Absent	CNDDB Lack of suitable nesting habitat No longer considered CSC by CDFG
Haliaeetus leucocephalus	**Bald eagle**	US: FT CA: SE, CFP	Winters locally at deep lakes and reservoirs, feeding on fish and waterfowl. Locally rare throughout North America. **Activity period:** November through February	Absent	USFWS Lack of suitable habitat
Empidonax traillii extimus	**Southwestern willow flycatcher**	US: FE CA: SE	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern United States and (formerly?) northwestern Mexico. Winters in Central and South America. **Activity period:** May through September	Absent	USFWS Lack of suitable habitat
Vireo bellii pusillus	**Least Bell's vireo**	US: FE CA: SE	Riparian forests and willow thickets. Nests from central California to northern Baja California. Winters in southern Baja California. **Activity period:** April through September	Absent	CNDDB, USFWS Lack of suitable habitat
Campylorhynchus brunneicapillus sandiegensis	**San Diego cactus wren**	US: – CA: CSC	Inhabits coastal sage scrub, nesting almost exclusively in thickets of cholla (*Opuntia prolifera*) and prickly pear (*Opuntia littoralis* and *Opuntia oricola*), typically below 150 m (500 ft) elevation. Found in coastal areas of Orange and San Diego Counties, and extreme northwestern Baja California, Mexico. **Activity period:** Year-round (nonmigratory)	Absent	CNDDB Lack of suitable habitat

Table B Listed, Proposed Species, and Critical Habitat Potentially Occurring or Known to Occur in the Project Area

Scientific Name	Common Name	Status	Habitat and Distribution	Habitat Present/ Absent	Source and Rationale
Polioptila californica californica	**Coastal California gnatcatcher**	US: FT CA: CSC	Inhabits coastal sage scrub in low-lying foothills and valleys in cismontane southwestern California and Baja California. **Activity period:** Year-round	Absent	CNDDB, USFWS Lack of suitable habitat.
Aimophila ruficeps canescens	**Southern California rufous-crowned sparrow**	US: – CA: CSC	Steep, rocky coastal sage scrub and open chaparral habitats, particularly scrubby areas mixed with grasslands. From Santa Barbara County to northwestern Baja California. **Activity period:** Year-round, diurnal activity	Absent	CNDDB Lack of suitable habitat
Ammodramus savannarum	**Grasshopper sparrow**	US: – CA: SA	Grasslands, agricultural fields, prairie, old fields, and open savanna. Uncommon and very local summer resident on grassy slopes and mesas west of the deserts. Only rarely in migration and in winter. Coastal Southern California. **Activity period:** Coastal: Year-round; only casually in migration elsewhere	Absent	CNDDB Lack of suitable habitat
Mammals					
Eumops perotis	**Western mastiff bat**	US: – CA: CSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in vertical cliff faces, high buildings, and tunnels and travels widely when foraging. **Activity period:** Primarily the warmer months	Absent	CNDDB Lack of suitable habitat
Myotis yumanensis	**Yuma myotis**	US: – CA: SA	Optimal habitats are open forests and woodlands with sources of water over which to feed. Common and widespread in California. Uncommon in the Mojave and Colorado Desert regions, except for mountains. Range from sea level to 2,440 m (8,000 ft). Roosts in buildings, mines, caves or crevices; occasionally in swallow nests and under bridges. **Activity period:** Primarily the warmer months	Absent	CNDDB Lack of suitable habitat

Habitat Present/Absent

Absent	No habitat present and no further work needed.
Habitat Present	Habitat is, or may be, present. The species may be present.
Present	The species is present.
Critical Habitat	Project footprint is located within a designated critical habitat unit, but does not necessarily mean that appropriate habitat is present.

US: Federal Classifications

FE	Taxa listed as Endangered
FT	Taxa listed as Threatened.
FPE	Taxa proposed for listing as Endangered
FPT	Taxa proposed for listing as Threatened
FPD	Taxa proposed for delisting
FC	Candidate for listing as Threatened or Endangered

CA: State Classifications

SE	Taxa State-listed as Endangered
ST	Taxa State-listed as Threatened
SR	Taxa State-listed as Rare
SCE	Candidate for State-listing as Endangered
SCT	Candidate for State-listing as Threatened
CSC	California Species of Special Concern. Refers to animals with vulnerable or seriously declining populations
CFP	California Fully Protected. Refers to animals protected from take under Fish and Game Code sections 3511, 4700, 5050, and 5515
SA	Special Animal. Refers to any other animal monitored by the Natural Diversity Database, regardless of its legal or protection status
SP	Special Plant. Refers to any other plant monitored by the Natural Diversity Database, regardless of its legal or protection status

CNPS: California Native Plant Society Classifications

1A	Plants presumed extinct in California
1B	Plants considered by CNPS to be rare, threatened, or endangered in California and elsewhere
2	Plants considered by CNPS to be rare, threatened, or endangered in California, but more common elsewhere

hydrophytic herbs and forbs (predominantly nonnative species). Due to the relatively small area of disturbed wetlands associated with this feature, and the proximity of the area to SR-74 and associated levels of disturbance from noise and human activity, the disturbed wetlands within the BSA are not expected to provide noteworthy habitat value to plant or wildlife species typically associated with riparian areas.

Chapter 4. Results: Biological Resources, Discussion of Impacts, and Mitigation

4.1. Natural Communities of Special Concern

No natural communities of special concern were identified within the BSA during the 2008 surveys. This is consistent with the results presented in the 2007 NES. Vegetation communities identified and mapped within the BSA (see Figure 2) include developed areas, ornamental vegetation, ruderal vegetation, and disturbed wetlands. Figure 4 provides representative photographs of the project site.

The project would result in temporary impacts to 0.45 ac of developed areas, 1.96 ac of ornamental vegetation, and 0.45 ac of ruderal vegetation; and permanent impacts to 5.63 ac of developed areas, 1.96 ac of ornamental vegetation, 1.43 ac of ruderal vegetation, and 0.04 ac of disturbed wetlands. Representative site photographs are shown in Figure 4. None of these communities are considered to be natural communities of special concern. The 2007 NES discussed impacts to "riparian" and "atypical wetland" areas, referring to the disturbed wetlands and other areas identified as potentially subject to Corps and CDFG jurisdiction. These impacts are discussed in Section 5.4 of this document. Avoidance and minimization measures identified in the 2007 NES will be implemented. The 2007 NES also includes a discussion for "oaks," although the coast live oak trees present within the BSA do not constitute oak woodland and are not located within a natural community of special concern. In addition, these oaks do not occur within CDFG jurisdictional areas; however, the City's Tree Removal Permit process will be applicable for the removal of any of these trees. Impacts to oaks and other trees are discussed in Section 4.2 of this document.

Short-term indirect effects associated with construction of the proposed project are not anticipated to affect natural communities of special concern, as none occur adjacent to the BSA. Short-term indirect effects (also discussed in Section 4.1 of the 2007 NES) may include increase susceptibility of adjacent areas to invasion by nonnative species; potential fuel or lubricant spills from equipment and vehicles; activities of equipment, vehicles, or personnel outside of designated construction areas; increased erosion, siltation, and runoff; increased localized noise and vibration;

Photo 1 - Facing southwest from Hunt Club Drive.

Photo 2a - Facing west from Toyon Drive.

Photo 2b - Facing east from Toyon Drive.

FIGURE 4a

Lower 74 Widening Project

Site Photos

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

I:\CDT0802\G\NES\NES-Photos-a.cdr (5/22/08)

Photo 3a - Facing southwest just east of Shade Tree Lane.

Photo 3b - Facing southeast just east of Shade Tree Lane.

Photo 4 - Facing southeast toward east end of project site.

Photo 5 - East end of project site facing west.

FIGURE 4b

Lower 74 Widening Project

Site Photos

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

and increased dust accumulation on plant leaves. Implementation of Best Management Practices (BMPs) in the Storm Water Pollution Prevention Plan (SWPPP) and restricting activities to within the designated construction area would minimize these effects. The 2007 NES concluded that long-term indirect impacts associated with the project would be limited to the beneficial effects of removal of exotic species within the BSA. The project is not anticipated to result in adverse impacts from shading from the retaining walls or soundwalls, fragmentation, or adverse effects to adjacent habitat.

4.2. Special-Status Plant Species

The focused plant surveys in 2008 concluded that there are no species with any listing status (CNPS, USFWS, or CDFG) within the BSA. Therefore, special-status plant species are considered absent from the BSA. This conclusion is based on the following: (1) the lack of observations of such species during the field surveys, including focused plant surveys conducted during the spring of 2008; (2) the lack of reports of such species from within the greater study area; and (3) the absence of suitable habitat for such species (i.e., the disturbed conditions and associated absence of natural plant communities in the BSA).

Mature trees with a diameter of greater than 6 inches at 3 ft above ground level are subject to the City's Tree Preservation Ordinance. The 2007 NES identified 111 trees within the BSA that would require removal, including two coast live oak trees.

4.2.1.1. AVOIDANCE AND MINIMIZATION EFFORTS

The 2007 NES identifies avoidance and minimization efforts in Sections 4.1.4.2 and 4.2.1.2, which will be implemented as applicable to trees in areas adjacent to the impact area (i.e., not planned for removal). These measures will be implemented.

4.2.1.2. PROJECT IMPACTS

Impacts to oak trees are discussed in Section 4.1.4 of the 2007 NES and include adverse effects resulting from work conducted within the dripline of the oaks.Based on the results of the survey conducted for the 2007 NES, it was determined that 111 trees would require removal. The number of these trees by species is included in Table D.

Table D Trees to be Removed

Scientific Name	Common Name	Number of Trees to be Removed[1]
Phoenix canariensis	Canary Island date palm	5
Ulmus parvifolia	Chinese elm	11
Quercus agrifolia	Coast live oak	2
Eucalyptus spp.	Eucalyptus	14
Olea europaea	European olive	1
Schinus molle	Peruvian pepper tree	30
Schinus terebinthefolius	Brazilian pepper tree	4
Platanus racemosa	Western sycamore	6
Platanus x acerfolia	London plane	10
Phoenix roebelenii	Pygmy date palm	1
Syagrus romanzoffianum	Queen palm	5
Yucca gloriosa	Spanish dagger yucca	2
Liquidambar styraciflua	Sweetgum	9
Myoporum insulare	Myoporum	3
Washingtonia robusta	Mexican fan palm	8
TOTAL		111

Source: Tatsumi (2007)

[1] Number of trees to be removed as determined in the field during a site visit conducted by Tatsumi, the City, and the Department

Additionally, indirect impacts to roots and canopy of trees on adjacent property may occur as a result of work within the impact area to trees located outside of the permanent and temporary impact areas. If substantial impacts to roots and canopy of trees on adjacent property occur, it may result in the eventual deterioration and loss of the tree.

4.2.1.3. COMPENSATORY MITIGATION

The 2007 NES identifies avoidance and minimization efforts in Sections 4.1.4.2 and 4.2.1.2, which will be implemented as applicable to trees in areas adjacent to the impact area (i.e., not planned for removal). These measures are not duplicated in this report. In addition, the following measures will be implemented.

Any impacts to oak trees will be mitigated by planting replacement trees in proximity to the BSA, as coordinated with the City through the City's Tree Preservation Ordinance. It is anticipated that oak trees to be removed will be mitigated at a minimum 1:1 replacement ratio. Impacts to other mature trees will also be offset by planting replacement trees in accordance with the City's Tree Removal Permit process, in proximity to the BSA where feasible. Replacement trees will be a similar size as the removed trees (up to a 48-inch box), and will be limited to species listed as recommended native trees by the City. The Department will not use trees on the

City's "not recommended" list: eucalyptus (*Eucalyptus* sp.) and pepper tree (*Schinus molle)*. Recommended species include: incense cedar (*Calocedrus decurrens)*; toyon (*Heteromeles arbutifolia)*; Catalina ironwood (*Lyonothamnus floribundus)*; laurel sumac (*Malosma laurina)*; Catalina cherry (*Prunus lyonii)*; coast live oak (*Quercus agrifolia)*; California bay (*Umbellularia californica)*; big leaf maple (*Acer macrophyllum)*; California buckeye (*Aesculus californica)*; western redbud (*Cercis occidentalis)*; desert willow (*Chilopsis linearis)*; western sycamore (*Platanus racemosa)*; Fremont cottonwood (*Populus fremontii)*; valley oak (*Quercus lobata)*; chitalpa (*Chitalpa taskentensis)*; yellow trumpet flowers (*Tecoma stans)*; and wild lilac (*Ceanothus* 'Ray Hartman').

In addition, within one year following project construction, if it is determined that trees subject to the City's Tree Removal Ordinance and adjacent to the project have been adversely affected by project construction to the extent that they must be removed, the Department will provide for tree removal and will compensate the tree owner through provision of one replacement tree (up to a 48-inch box size) for each tree lost. The replacement tree will be of the same species as the removed tree except when the species is classified as an invasive species. In that event, a tree with similar appearance and growth habits may be substituted.

4.2.1.4. CUMULATIVE EFFECTS

Because impacts to mature trees within the BSA are limited to ornamental landscaped trees and two coast live oaks, and because they will be offset by planting similar trees in proximity to the BSA, the project is not expected to contribute to cumulative effects to mature trees in the region.

4.3. Special-Status Animal Species Occurrences

The 2007 NES describes the regulatory context relating to impacts to special-status wildlife. According to the 2007 NES and based on surveys conducted in 2008, no special-status animal species are considered present within the BSA based on lack of suitable habitat within the BSA for these species and lack of direct observation of these species during field surveys. Federally-designated critical habitat is not present within the BSA. However, raptors and other birds protected by the MBTA may use the ornamental trees and shrubs in the BSA for nesting habitat. Nesting birds are the only wildlife species within the BSA that are subject to legal protection.

Direct and indirect effects to animal species are discussed in Section 4.3 of the 2007 NES. Direct impacts to wildlife that could occur as a result of the proposed project include temporary and permanent loss of habitat, including potential impacts to trees and shrubs used for nesting and burrows used by ground-dwelling mammals and reptiles. Species that are relatively mobile (birds and many small mammals and reptiles) will likely disperse into nearby areas. Some mortality of less mobile and fossorial (i.e., burrowing) species may occur. All impacts will be to species that are relatively common within the region. No native vegetation communities or special-status wildlife species will be affected by the project. The proposed project does not include the placement of any median barriers and is not anticipated to permanently affect wildlife movement.

Long-term noise impacts from increased traffic will be offset in areas adjacent to the project site through the construction of soundwalls. Construction impacts will include increased noise levels and increased human disturbance. Construction noise may adversely affect nesting birds, particularly if construction and vegetation clearing begin after the onset of nesting season.

Indirect impacts to wildlife beyond the BSA could result from impacts to water quality during construction, although these impacts would be avoided and minimized through implementation of BMPs in accordance with the SWPPP. The SWPPP and the replacement of existing drainage facilities with facilities designed to accommodate and treat runoff from the proposed road configuration will ensure that no substantial adverse impacts occur to San Juan Creek downstream of the project site. No substantial adverse indirect impacts to wildlife beyond the BSA are anticipated to occur as a result of the project. Additional indirect effects may occur during construction as a result of noise and glare, invasive species, increased dust generation, mortality of wildlife from species displaced by construction, increased potential for soil erosion, siltation, and runoff.

Temporary impacts would be limited to the construction period and include noise impacts as discussed above, potential impacts from construction lighting to allow for nighttime work, and temporary displacement of wildlife.

Permanent impacts will include loss of nesting trees and shrubs, although these impacts would be offset through replacement of mature trees in proximity to the BSA. Permanent impacts from loss of vegetation communities are limited to nonnative

vegetation that does not provide substantial wildlife habitat resources for special-status species. No other permanent impacts to wildlife are anticipated.

4.3.1. Nesting Birds

As discussed in Section 2.1 of this document, the MBTA and the California Fish and Game Code prohibit impacts to most native species of nesting birds. The trees and shrubs within and adjacent to the BSA may provide suitable nesting sites for a variety of species, including raptors and species protected by the MBTA, which are protected pursuant to these regulations.

4.3.1.1. Survey Results

No nesting birds were detected within the BSA during surveys conducted in April 2008. A few nests were observed in eucalyptus trees in May during the tree survey. It was unclear whether the nests were active; they appeared to be that of the American crow *(Corvus brachyrhynchos)* or a species of similar size. Several species protected pursuant to the MBTA and California Fish and Game Code with the potential to nest within the BSA were documented during surveys. These include mourning dove *(Zenaida macroura),* Anna's hummingbird *(Calypte anna),* Nuttall's woodpecker *(Picoides nuttallii),* black phoebe *(Sayornis nigricans),* American crow, bushtit *(Psaltriparus minimus),* house finch *(Carpodacus mexicanus),* and lesser goldfinch *(Carduelis psaltria).* Raptors, including red-tailed hawk *(Buteo jamaicensis),* were also observed during the 2008 surveys; however, nesting habitat within the BSA is not ideal for nesting due to the proximity to the highway and the presence of more suitable nesting sites further from the highway. Other locally common species may also occur and nest within the BSA; however, no special status bird species are expected to nest within the BSA.

4.3.1.2. Avoidance and Minimization Efforts

The 2007 NES identifies avoidance and minimization efforts in Section 4.3.1.2, which will be implemented. These measures are not duplicated in this report.

4.3.1.3. Project Impacts

As discussed above, direct impacts will occur as a result of the loss of potential nesting sites (trees and shrubs) within the impact area. However, the replacement of mature trees in proximity to the BSA is anticipated to offset these impacts; therefore, the impacts are anticipated to be temporary. No permanent impacts to nesting birds are anticipated as a result of the proposed project.

Direct impacts to nesting birds could occur if an active nest is removed or if nesting birds are disturbed as a result of construction activities to the extent that they abandon the nest. The MBTA and California Fish and Game Code prohibit impacts that cause nest failure of most species of birds, and the avoidance and minimization measures described above are anticipated to ensure that no nest loss occurs.

Indirect impacts to birds nesting adjacent to the BSA would also be avoided through implementation of the avoidance and minimization measures described above, which require the preconstruction nest survey to include suitable habitat within up to 50 ft of the impact area.

In addition to those impacts described above, one sound wall variation proposes the use of Plexiglas® walls. Plexiglas® walls may directly impact birds protected by the Migratory Bird Treaty Act due to birds striking the walls and causing their death. These bird strikes are not expected to be substantial, due to the presence of the adjacent residential properties, and are likely to decrease with time as resident birds learn that the wall is there. Although these impacts are not expected to be substantial, sound walls should be designed to minimize the potential for these bird deaths; for example, use of etched patterns on Plexiglas®, ultraviolet light reflectors, or tape strips along the top of the walls.

4.3.1.4. COMPENSATORY MITIGATION

As discussed in Section 4.2.1.3 of this document, impacts to mature trees will be offset in accordance with the requirements of the City's Tree Preservation Ordinance through the Tree Removal Permit process. No additional compensatory mitigation is required.

4.3.1.5. CUMULATIVE EFFECTS

Project impacts to nesting birds are limited to the removal of trees and shrubs along SR-74. These resources are less suitable for nesting than other resources throughout the region due to their proximity to the roadway and the resulting noise and human disturbance. Potential impacts from tree removal will be minimized and avoided through the planting of replacement trees. Therefore, temporary impacts to these resources are not anticipated to result in a cumulatively considerable contribution to impacts to nesting sites throughout the region.

Chapter 5. Results: Permits and Technical Studies for Special Laws or Conditions

5.1. Federal Endangered Species Act Consultation Summary

In order to prepare this supplement to the 2007 NES, biologist Adrianne Beazley contacted the USFWS to request an update to the species list. Sally Brown of the USFWS replied to indicate that the original list provided for the 2007 NES was still accurate, with the exception that critical habitat for the coastal California gnatcatcher is no longer present within the BSA. The original species list and electronic correspondence are included as Appendix D.

5.2. Federal Fisheries and Essential Fish Habitat Consultation Summary

No additional consultation was required for Federal Fisheries and Essential Fish Habitat, as these resources have been determined to be absent from the BSA.

5.3. California Endangered Species Act Consultation Summary

No additional consultation was required pursuant to CESA, as resources subject to CESA have been determined to be absent from the BSA.

5.4. Wetlands and Other Waters Coordination Summary

Section 5.5 of the 2007 NES describes the coordination relating to wetlands and other waters conducted prior to the preparation of this supplement.

5.4.1. Survey Methods

A delineation of wetlands and other jurisdictional waters within the study area was conducted by biologists Dan Rosie and Elizabeth Delk on May 1, 2008. The Supplemental Wetlands Delineation and Assessment of Jurisdictional Waters Report

(Appendix C) provides details regarding the regulatory setting, methods, field observations, and results. The BSA was surveyed on foot and by vehicle to identify and map potential jurisdictional areas and evaluate them according to Corps and CDFG criteria. Only areas to be affected by the proposed project within the Department and City right-of-way were evaluated. Potential jurisdictional areas were evaluated according to the routine wetland delineation procedures described in the 1987 Manual and the 2006 Supplement.

5.4.2. Results

Three potential jurisdictional features were identified within the study area: Features A, B and C, which correspond to the areas identified as DS 7, DS 8, and DS 10, respectively, in the 2007 NES. Within the BSA, potential jurisdictional wetland and nonwetland waters of the U.S. subject to Corps jurisdiction totals 0.058 ac, and potential streambed subject to CDFG jurisdiction totals 0.098 ac, as described in further detail below. This delineation concluded that the areas potentially subject to Corps and CDFG jurisdiction, associated with the areas identified as DS 7, 8, and 10, are substantially smaller than identified in the 2007 NES. The results of the delineation have not been verified by the ACOE or CDFG.

The 2007 NES identified DS 7, 8, and 10 as jurisdictional "atypical wetlands" (as defined in the 1987 Corps Wetland Delineation Manual, Section F, Atypical Situation). The 2008 Supplemental Wetlands Delineation and Assessment of Jurisdictional Waters Report concluded that DS 7/Feature A, DS 8/Feature B, and DS 10/Feature C are potentially jurisdictional waters of the U.S., but only DS 7/Feature A contains potential wetland waters of the U.S. This conclusion is based on additional field work conducted in accordance with the 1987 *Corps Wetland Delineation Manual* as well as the 2006 *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region*.

The 1987 *Corps Wetland Delineation Manual* discusses "Atypical Situations" in Section F. Paragraph 71 (c) of Section F describes "Man-induced wetlands." This section defines man-induced wetlands as "wetlands that have been purposely or incidentally created by human activities, but in which wetland indicators of one or more parameters are absent." As an example, it states "road construction may have resulted in impoundment of water in an area that previously was nonwetland, thereby effecting hydrophytic vegetation and wetland hydrology in the area. However, the area may lack hydric soil indicators." Subsection 4 of Section F provides the

procedures for delineating man-induced wetlands. In order to conclude that the area is a wetland, Subsection 4 states, "When indicators of hydrophytic vegetation and wetland hydrology are found and there is documented evidence that the change in hydrology occurred so recently that soils could not have developed hydric characteristics, the area is a wetland. In such cases, it is assumed that the soils are functioning as hydric soils."

In the case of the features located within the BSA, only one, DS 7, included all three indicators. Because all three indicators are present, the area may be considered a wetland (rather than an "atypical wetland") pursuant to routine delineation practices. The other two features, DS 8 and DS 10, were found to lack hydrophytic vegetation, and therefore are considered nonwetland waters of the U.S.

The final determination of what is jurisdictional within the study area and whether mitigation will be required for such impacts is ultimately subject to the discretion of the agencies (i.e., CDFG, Corps, and RWQCB) during the federal and State regulatory processes. Anticipated required permits are a Section 404 LOP or NWP 14 authorization from the Corps, a Section 401 Water Quality Certification or Waiver from the RWQCB, and a Section 1602 Lake or Streambed Alteration Agreement from the CDFG. Measures to address unavoidable impacts will be discussed with resource agencies to ensure that the compensatory mitigation is satisfactory.

5.4.3. United States Army Corps of Engineers

The proposed project contains 0.058 ac of potential jurisdictional waters subject to Corps jurisdiction. Of this area, 0.036 ac is considered potential wetland waters of the U.S. and 0.022 ac is considered potential nonwetland waters of the U.S. Potentially jurisdictional portions of DS 7/Feature A (0.036 ac of wetland waters of the U.S.) are approximately 113 ft long. The jurisdictional portion of DS 8/Feature B (0.005 ac nonwetland waters of the U.S.) is approximately 240 ft long. Jurisdictional portions of DS 10/Feature C (0.017 ac nonwetland waters of the U.S.) are approximately 400 ft on the north side of the road and the jurisdictional portion on the south side of the road is approximately 90 ft long. A Section 404 LOP or NWP 14 for linear transportation projects will be required.

5.4.4. California Department of Fish and Game

The project contains 0.098 ac of streambed potentially subject to CDFG jurisdiction. Feature B is considered to be nonriparian streambed due to the lack of suitable riparian species, with the exception of one isolated willow. The isolated willow present in the feature does not provide riparian habitat, but is considered jurisdictional to the extent of the canopy dripline. It is anticipated that the CDFG will authorize the alterations of jurisdictional streambed for project construction under a Section 1602 Lake or Streambed Alteration Agreement.

5.4.5. Impacts

Sections 4.1.1.3 and 4.1.2.3 of the 2007 NES discusses project impacts to wetlands and other waters. This document has some conclusions that differ from the 2007 NES, as discussed in Section 5.4.2. Build Alternatives 1 and 2 would have the same impact footprint to waters of the U.S. and streambed, and both would result in the same impacts to wetlands and nonwetland waters of the U.S. The proposed project is designed to maintain preproject downstream flow conditions by replacing the drainage functions with drainage pipes that will tie into the existing storm drain system. The No Build Alternative does not involve any impacts to wetlands or other waters of the U.S. or CDFG jurisdictional streambed.

Within the BSA, the drainage function of all drainages will be replaced by new pipes under Build Alternatives 1 and 2. As stated above, Build Alternatives 1 and 2 would have the same impact footprint to waters of the U.S. and streambed, and both would result in the same impacts to wetlands and nonwetland waters of the U.S. Existing conditions provide minimal habitat value, and the jurisdictional features do not provide high-quality habitat for plants, wildlife, or special interest species. Additionally, due to the lack of native vegetation and the disturbed conditions typical of a roadside shoulder, the functions and values (as discussed in the Supplemental Wetlands Delineation and Assessment of Jurisdictional Waters Report, July 2008) of the jurisdictional features are minimal.

The Build Alternatives would result in 0.001 ac of temporary impacts to nonwetland waters of the U.S within Feature C (DS 10). This 0.001 ac of temporary impacts is also potentially subject to CDFG jurisdiction. An additional 0.001 ac of streambed habitat potentially subject to CDFG jurisdiction within Feature B (DS 8) will be temporarily impacted. Temporary impacts to CDFG potentially jurisdictional

streambed total 0.002 ac. All other impacts will be permanent and are addressed below.

Build Alternatives 1 and 2 will directly and permanently affect 0.085 ac of streambed potentially subject to CDFG jurisdiction. It is anticipated that the CDFG would authorize the alteration of these features for construction under a Section 1602 Lake or Streambed Alteration Agreement.

Table E identifies the permanent impacts to waters associated with Build Alternatives 1 and 2. Impacts to wetlands and other waters involve the loss of vegetation from the filling of DS 7, 8, and 10 for SR-74 widening and direct removal of vegetation due to site preparation such as vegetation clearing, grubbing, and grading.

Table E Impacts to Potential Corps and CDFG Jurisdictional Areas

Feature	Permanent Impacts to Potential Corps Wetland Waters (ac)	Permanent Impacts to Potential Corps Nonwetland Waters (ac)	Temporary Impacts to Potential Corps Nonwetland Waters (ac)	Permanent Impacts to Potential CDFG Jurisdictional Habitat (ac)	Temporary Impacts to Potential CDFG Jurisdictional Habitat (ac)
Feature A (DS 7)	0.035	0	0	0.035	0
Feature B (DS 8)	0	0.005	0	0.034	0.001
Feature C (DS 10)	0	0.016	0.001	0.016	0.001
Total	**0.035**	**0.021**	**0.001**	**0.085**	**0.002**

Since most of the widening will occur on the north side of SR-74, all existing drainages would be modified and extended to intercept at the proposed edge of pavement. An additional 10 drainages would be added on the north side of SR-74 throughout the BSA.

Indirect effects to wetlands and other waters may include: (1) changes in hydrology from increased sediment entering drainage areas after vegetation clearing, and/or (2) invasive, nonnative plants transported into areas along the roadway with the movement of soil and/or placement of fill material that is present on construction equipment brought on site or taken off site and is inadvertently included in seed mixes. These indirect effects would only last during construction.

5.4.6. Agency Coordination

LSA contacted Stephanie Hall of the Corps and Naeem Siddiqui of the CDFG to discuss the methods and results of the jurisdictional delineation. Ms. Hall indicated that the Corps will need to complete a Jurisdictional Determination Form, and that the Corps would prefer that the Department prepare a draft Jurisdictional Determination form on behalf of the Corps. Mr. Siddiqui indicated that the routine jurisdictional delineation would be adequate to document the changes to the extent of potential CDFG streambed identified within the BSA.

5.4.7. Avoidance and Minimization Measures and Compensatory Mitigation

The CDFG is likely to require compensatory mitigation (e.g., in an off-site mitigation bank or in-lieu fee program) to offset the permanent loss of jurisdictional streambed. In accordance with the agreements reached during agency consultation, the the Department will assume responsibility for mitigation and monitoring commitments for any impacts to biological resources associated with the proposed project, including mitigation required pursuant to CEQA as well as any additional measures required by the resource agencies during the permitting process. Mitigation for impacts to biological resources will be implemented by the Department. The Department will serve as the Applicant for resource agency permits. The project shall comply with applicable conditions of the SAMP and the NCCP/MSAA/HCP, discussed in Section 2.1. The anticipated applicable conditions of the SAMP are outlined in the measure listed below.

The avoidance and minimization measures outlined in Sections 4.1.1.2 and 4.1.2.2 of the 2007 NES will be implemented as appropriate. Measures from the 2007 NES that have not been modified are not duplicated in this document. The following measure, which includes the anticipated requirements of the SAMP Letter of Permission, has been modified and now reads as follows:

> The project would result in permanent impacts to waters of the United States (waters of the U.S.), requiring a Letter of Permission (LOP) from the U.S. Army Corps of Engineers (Corps) to authorize the discharge of dredged and/or fill materials into waters of the U.S. pursuant to Section 404 of the Clean Water Act. A Compensatory Mitigation Plan addressing unavoidable impacts to waters of the U.S.

and the program goal of no net loss of wetlands shall be prepared and approved by the Corps prior to the issuance of the first grading permit. Mitigation ratios shall be determined by the Corps, but shall be no less than 1:1 to offset loss of wetland waters of the U.S. The following measures, which are anticipated conditions of the LOP, shall be implemented:

a. When feasible, erosion and siltation controls, such as siltation or turbidity curtains, sedimentation basins, and/or hay bales or other means designed to minimize exacerbating turbidity in the watercourse above background levels existing at the time of project implementation shall be used and maintained during project implementation. All exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be stabilized at the earliest practicable date to preclude additional damage to the project area through erosion or siltation and no later than November of the year the work is conducted to avoid erosion from storm events.
b. Heavy equipment working in or crossing wetlands shall be placed on temporary construction mats (timber, steel, geotextile, rubber, etc.), or other measures must be taken to minimize soil disturbance such as using low-pressure equipment. Temporary construction mats shall be removed promptly after construction.
c. No discharge of dredged or fill materials (even if temporary) shall consist of unsuitable materials (e.g., trash, debris), and material discharged shall be free from pollutants in toxic amounts, per Section 307 of the Clean Water Act.
d. To the maximum extent practicable, the activity shall be designed to maintain preproject downstream flow conditions.
e. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting conditions, including any native riparian and/or wetland vegetation.
f. Measures shall be adopted to prevent potential pollutants from entering the watercourse. Construction materials and debris (including fuels, oil, and other liquid substances) will not be stored in the project areas so as to prevent any runoff from entering jurisdictional areas.

g. Staging, storage, fueling, and maintenance of equipment must be located outside the jurisdictional waters in areas where potential spilled materials will not be able to enter any waterway or other body of water.

h. Prior to initiation of the project, the boundaries of the project's impact area shall be delineated by the placement of temporary construction fencing, staking, and/or signage. Any additional acreage impacted outside the approved project footprint shall be mitigated at a 1:1 ratio. In the event that additional mitigation is required, the type of mitigation shall be determined by the Corps and may include wetland enhancement, restoration, creation, or preservation.

i. With regard to federally listed avian species, avoidance of breeding season requirements shall be those specified in the programmatic Section 7 consultation for the LOP procedures. For all other species, initial vegetation clearing in waters of the U.S. must occur between September 15 and March 15. Work in waters may occur between March 15 and September 15 if bird surveys indicate the absence of any nesting birds within a 50 ft radius.

j. The Corps shall be allowed to inspect the site at any time during and immediately after project implementation provided 24-hour advanced notice is given to the permittee. In addition, compliance inspections of all mitigation sites must be allowed at any time.

k. A copy of the LOP conditions shall be included in all bid packages for the project; shall be available at the work site at all times during periods of work; and must be presented upon request by any Corps or other agency personnel with a reasonable reason for making such a request.

l. Within 60 days of completion of impacts to waters, as-built drawings with an overlay of waters that were impacted and avoided shall be submitted to the Corps. Post project photographs shall also be provided that document compliance with permit conditions.

m. An individual Section 401 Water Quality Certification shall be obtained [33 CFR 325.2(b)(1)].

n. All giant reed *(Arundo donax),* salt cedar (*Tamarix* spp.), and castor bean *(Ricinus communis)* must be removed from the project site, and it must be ensured that the site remains free from these nonnative species for a period of five years from project completion.

5.5. Invasive Species

Section 4.1.3 of the 2007 NES addresses impacts to invasive species, and includes recommended avoidance and minimization efforts (Section 4.1.3.2). These measures are not duplicated in this report, but will be included as appropriate to avoid and minimize impacts associated with invasive species.

Section 5.6 of the 2007 NES includes information relating to the regulatory requirements relating to invasive species. No change to the regulatory setting or context has occurred since the preparation of that document, and no additional consultation is required.

5.6. Other

No additional consultation was required for other topics. Section 5.7 of the 2007 NES includes relevant information pertaining to fisheries, the MBTA, Executive Order 119900, and wildlife corridors. No additional information is required.

Chapter 6. References

Brown, Sally. April 8, 2008. E-mail response to request to update species list for SR-74 project (FWS-OR-1688.7). United States Fish and Wildlife Service. Sally_Brown@fws.gov. Indicated that no update to the list was needed; only change is site is no longer within designated critical habitat for coastal California gnatcatcher *(Polioptila californica californica).*

California Department of Fish and Game, Natural Heritage Division, Natural Diversity Database. February 2, 2008. *RareFind Version 3.1.0.* Records search executed April 22, 2008, covering the USGS 7.5-minute series topographic map, *San Juan Capistrano, California* quadrangle. Sacramento, California: The Resources Agency.

California Department of Transportation. 2007. Natural Environment Study SR-74 (Ortega Highway), San Juan Capistrano City Widening. EA 086900.

California Exotic Pest Plant Council (Cal-EPPC). 1999. The Cal-EPPC List: Exotic Pest Plants of Greatest Ecological Concern in California. California Exotic Pest Plant Council: San Juan Capistrano, CA. Accessed at http://www.cal-ipc.org/ip/inventory/pdf/Inventory1999.pdf on May 20, 2008.

California Invasive Plant Council (Cal-IPC). 2008. California Invasive Plant Inventory Database. Accessed at http://www.cal-ipc.org/ip/inventory/weedlist.php on May 20, 2008.

California Native Plant Society (CNPS). 2008. Inventory of Rare and Endangered Plants (online edition, v7-08b). California Native Plant Society. Sacramento, CA. Accessed on Tue, Apr. 22, 2008 from http://www.cnps.org/inventory.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, Mississippi.

Environmental Laboratory. 2006. Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region. Technical Report ERDC/EL TR-06-16. Vicksburg, Mississippi.

Hall, Stephanie. May 28, 2008. Telephone conversation regarding the difference in conclusion of 2008 delineation from 2007 fieldwork. United States Army Corps of

Engineers. (213) 452-3410. Confirmed that routine jurisdictional delineation is adequate to document reduced extent of jurisdictional areas present on the project site.

Hickman, James (ed.). 1993. The Jepson Manual: Higher Plants of California. University of California Press.

Laundenslayer, et. al. 1991. A Checklist of the Amphibians, Reptiles, Birds, and Mammals of California. California Fish and Game 77:109–141.

Munsell Color. 2000 (rev. ed.). Munsell Soil Color Charts. Macbeth Division of Kollmorgen Instruments Corporation, New Windsor, NY.

Reed, Jr., P.B. 1988. National List of Plant Species That Occur in Wetlands: California (Region 0). United States Fish and Wildlife Service Biological Report 88 (26.10).

Siddiqui, Naeem. May 29, 2008. Telephone conversation regarding the difference in conclusion of 2008 delineation from 2007 fieldwork. California Department of Fish and Game. (562) 493-6897. Confirmed that routine jurisdictional delineation is adequate to document reduced extent of jurisdictional areas present on the project site.

United States Fish and Wildlife Service. 2006. Species List for the State Route 74 Widening Project for the City of San Juan Capistrano, Orange County, California (FWS-OR-1688.7), dated August 7, 2006.

Appendix A Preliminary Design Layouts

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.08/1.94		

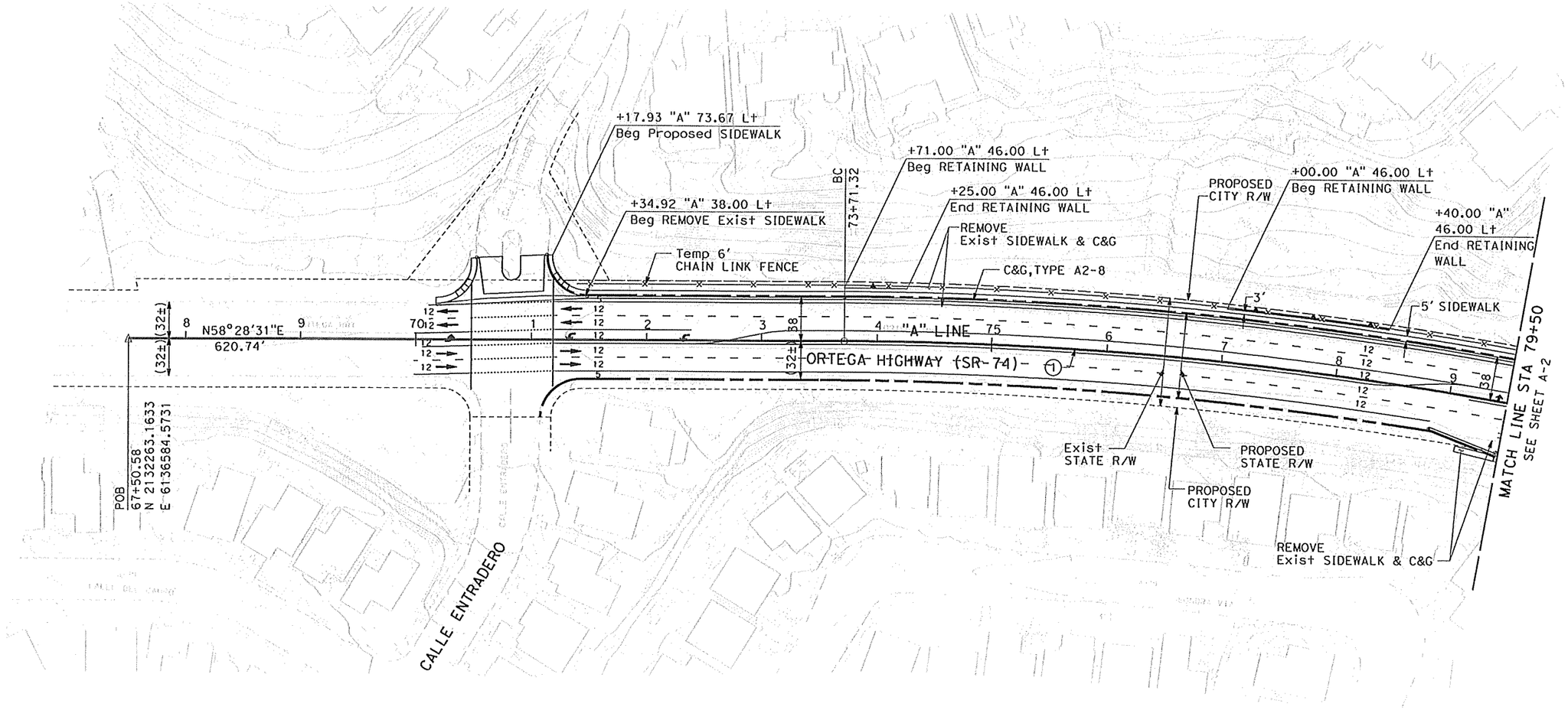
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LIEM ANH NGUYEN
No. C 70728
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602



CURVE DATA				
NO.	R	Δ	T	L
①	3350.00	15°44'42.76"	463.22	920.60

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

ALTERNATIVE 2

SCALE: 1" = 50

NOT FOR CONSTRUCTION

A-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY	HCL
Caltrans	LAN SAADATNEJADI	CHECKED BY	DATE REVISED	
		BULBUL GANGULY		
		LIEM NGUYEN		

LAST REVISION DATE PLOTTED =>9/26/2008

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY AND ACCURATE ACCESS DATA, SEE RIGHT-OF-WAY RECORD MAPS AT DISTRICT OFFICE
2. REFER TO THE TITLE SHEET FOR SURVEY CONTROL NOTES.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.08/1.94		

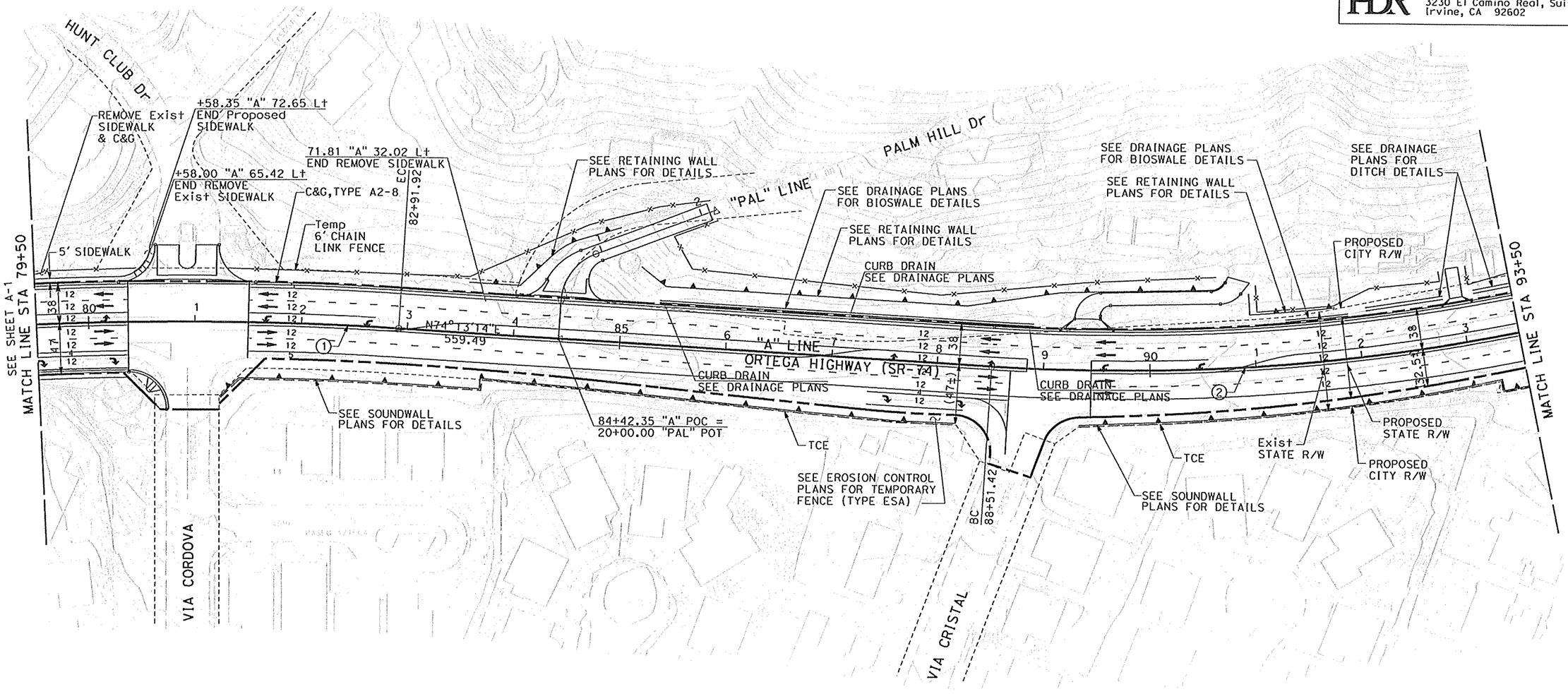
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LIEM ANH NGUYEN — No. C 70728 — Exp. 6-30-09 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602



CURVE DATA				
NO.	R	Δ	T	L
①	3350.00	15°44'42.76"	463.22	920.60
②	1900.00	15°13'37.47"	253.97	504.95

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN

ALTERNATIVE 2

SCALE: 1" = 50

NOT FOR CONSTRUCTION

A-2

REVISED BY	DATE REVISED
BULBUL GANGULY	LIEM NGUYEN

CALCULATED-DESIGNED BY | CHECKED BY

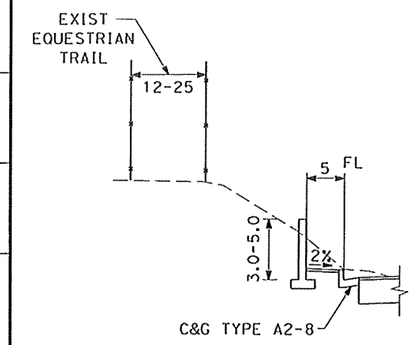
SUPERVISOR | CONSULTANT FUNCTIONAL SUPERVISOR

LAN SAADATNEJADI

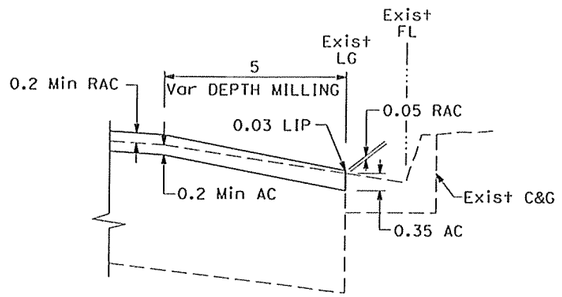
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

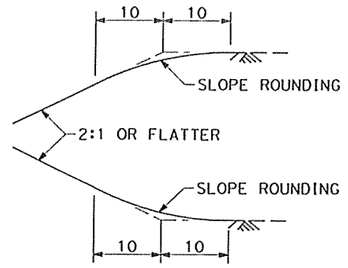
LAST REVISION | DATE PLOTTED =>



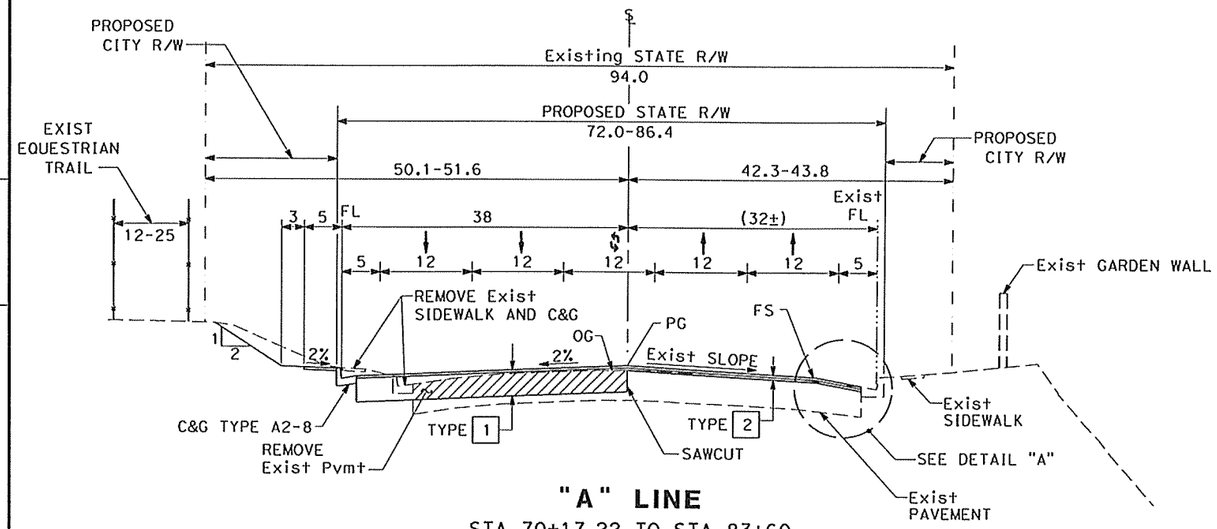
RETAINING WALL
STA 73+71.00 TO STA 74+25.00
STA 77+00.00 TO STA 78+40.00



DETAIL A



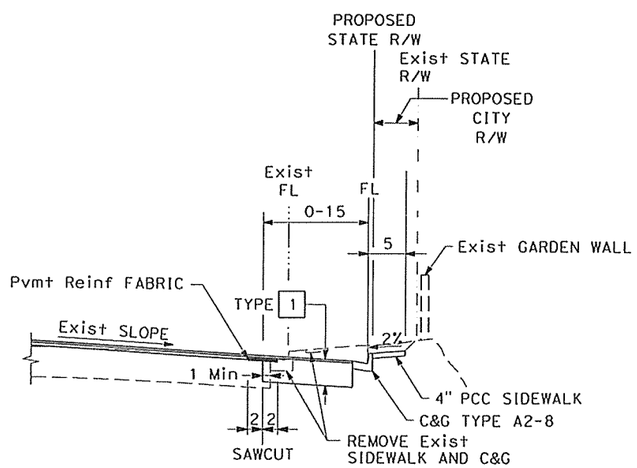
SLOPE ROUNDING DETAIL
(TYPICAL)



"A" LINE
STA 70+17.22 TO STA 83+60

LEGEND:

- EXISTING PAVEMENT
- NEW PAVEMENT
- REMOVE EXISTING PAVEMENT



STA 78+86.40 TO STA 80+37.33

DESIGN DESIGNATION (SR-74)

2005 ADT = 24,000 D=52%
2030 ADT = 42,000 T=8.0%
DHV = 3,390 V=45 MPH
TI_{20} = 13
ESAL = 21,800,000

STRUCTURAL SECTIONS	
TYPE 1	0.2 Min RUBBERIZED ASPHALT CONCRETE (RAC), TYPE G
	1.55 AC BASE, TYPE A, ¾" MAX
TYPE 2	0.2 Min RAC, TYPE G
	0.2 Min MILL AND AC BASE, TYPE A, ¾" MAX
TYPE 3	1.75 AC TYPE A, ¾" MAX

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. FOR LOCATIONS OF CURB AND GUTTER, DIKE AND MBGR, SEE LAYOUT AND SUMMARY OF QUANTITIES SHEETS.
3. FOR VARIATIONS IN TYPICAL CROSS SECTIONS, REFER TO LAYOUT, CONSTRUCTION DETAILS, PAVEMENT CONSTRUCTION AND REMOVAL AND PAVEMENT DELINEATION PLANS.
4. CURB AND GUTTER, DRIVEWAY, AND DIKE SHOULD BE PLACED ON NATIVE SUBGRADE MOISTURE CONDITIONED TO A MINIMUM OF 3% OVER OPTIMUM MOISTURE CONTENT AND COMPACTED TO 90% COMPACTION.
5. CLEAN AND FILL ALL EXPOSED CRACKS WIDER THAN ⅛".
6. THE JOINTS BETWEEN THE EXISTING PAVEMENT AND THE NEW PAVEMENT SHALL BE SEALED. A LAYER OF PRIME COAT IS TO BE APPLIED BETWEEN ALL BONDED AND UNBONDED LAYERS. A LAYER OF THICK COAT SHALL BE APPLIED TO ALL VERTICAL CUT FACES AND BETWEEN SUBSEQUENT AC LIFTS.

ALL DIMENSIONS ARE IN FEET
UNLESS OTHERWISE SHOWN

ALTERNATIVE 2
TYPICAL CROSS SECTIONS

NO SCALE

NOT FOR CONSTRUCTION

X-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.08/1.94		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — LIEM ANH NGUYEN — No. C 70728 — Exp. 6-30-09 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
CONSULTANT FUNCTIONAL SUPERVISOR: LAN SAADATNEJADI
CALCULATED-DESIGNED BY: BULBUL GANGULY
CHECKED BY: LIEM NGUYEN
REVISED BY
DATE REVISED
LAST REVISION
DATE PLOTTED = 12/26/2008

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.08/1.94		

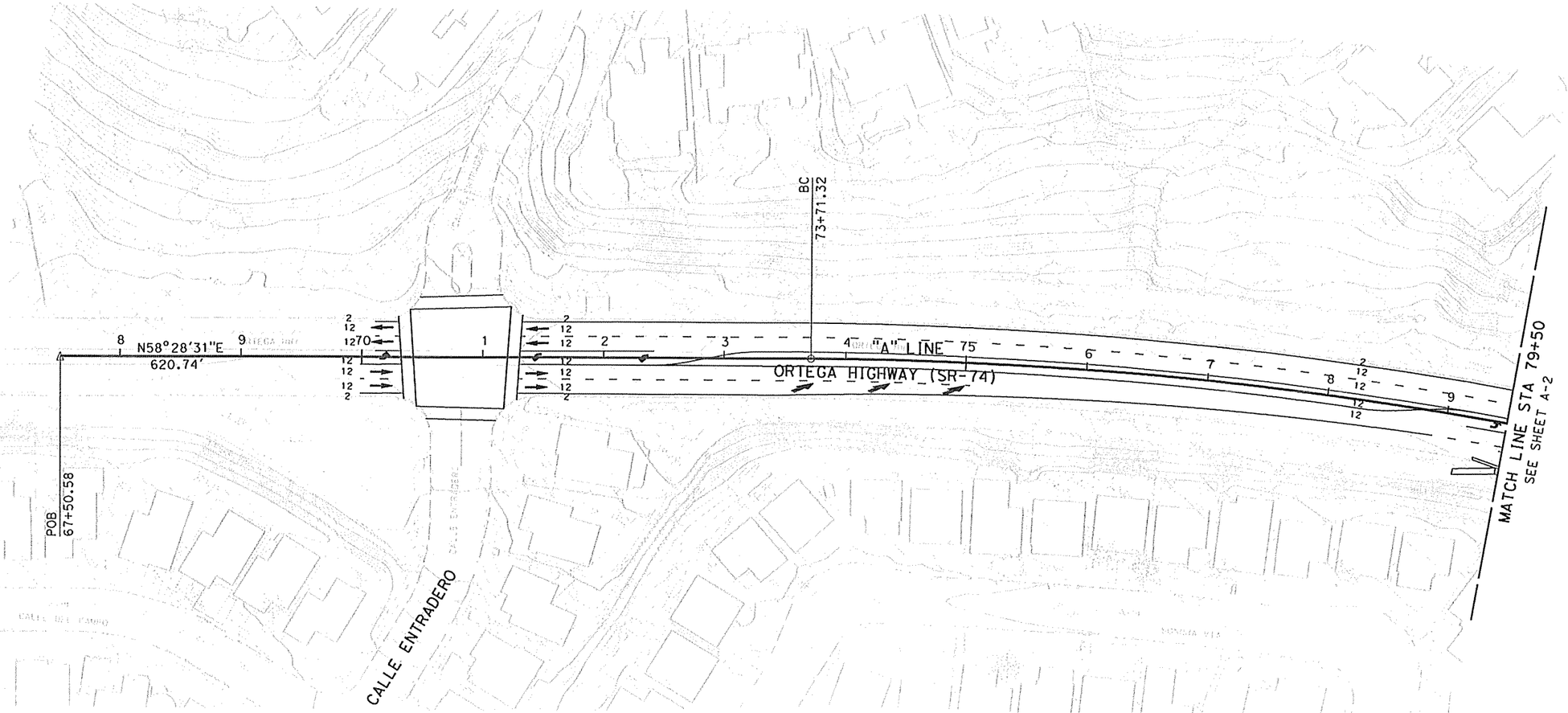
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
LIEM ANH NGUYEN
No. C 70728
Exp 6-30-09
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602



GENERAL NOTES:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE JULY 2006 STANDARD SPECIFICATIONS AND JULY 2006 STANDARD PLANS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND SPECIAL PROVISIONS FOR THIS PROJECT.
2. SIGNS SHALL BE DESIGNED TO THE CALTRANS SEPT. 2006 MUTCD INCLUDING REVISIONS, AND HAVE THEIR CURRENT REFLECTIVITY LEVELS. ALL SIGNS SHALL BE INSTALLED AT LEAST 3' BEHIND CURB AT CURB RETURNS AND DRIVEWAYS.
3. ALL PAVEMENT DELINEATIONS WILL BE THERMOPLASTIC.

ALL DIMENSIONS ARE IN FEET
UNLESS OTHERWISE SHOWN

ALTERNATIVE 3

SCALE: 1" = 50

NOT FOR CONSTRUCTION

A-1

CALCULATED-DESIGNED BY	BULBUL GANGULY	REVISED BY	HCL
CHECKED BY	LIEM NGUYEN	DATE REVISED	
CONSULTANT FUNCTIONAL SUPERVISOR	LAN SAADATNEJADI		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	Caltrans		

RELATIVE BORDER SCALE 0 1 2 3 USERNAME = USER

LAST REVISION DATE PLOTTED = 12/05/2008

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	74	1.08/1.94		

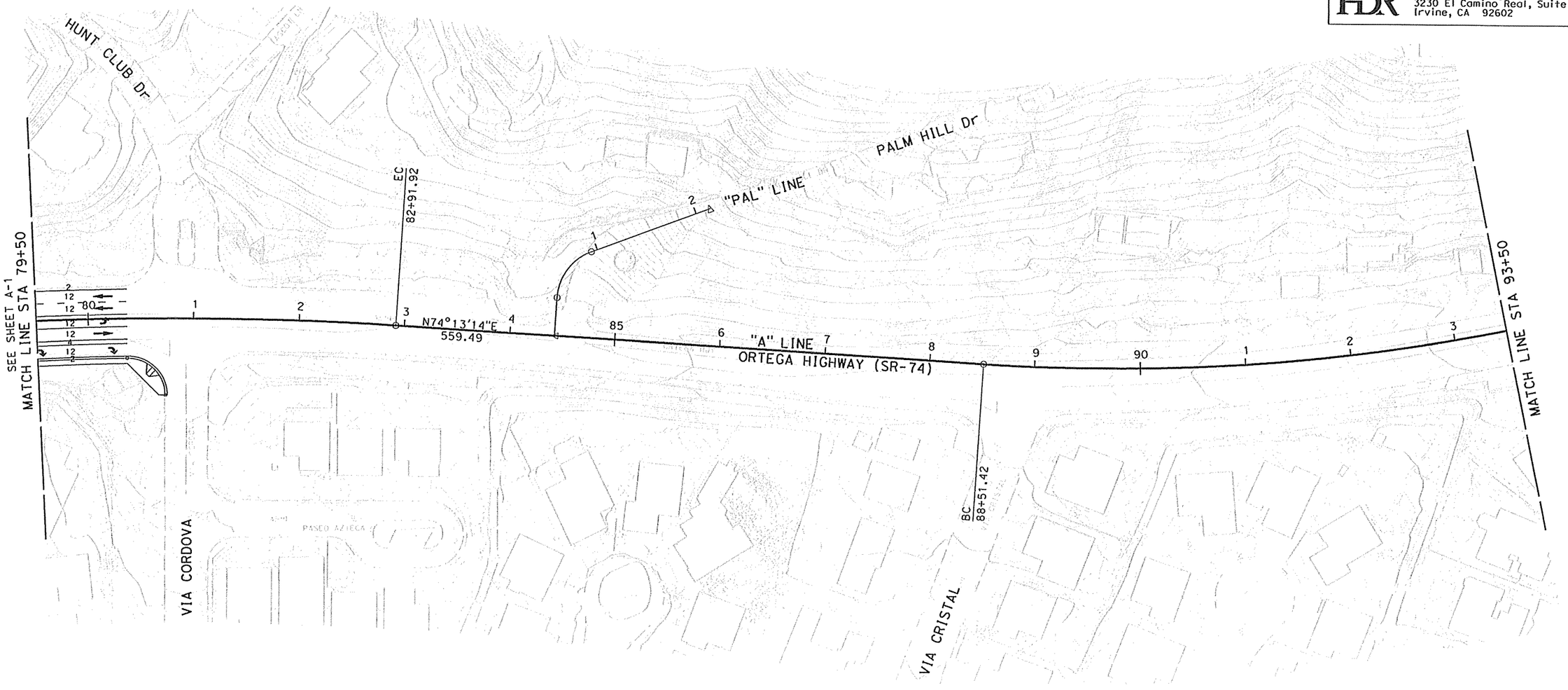
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
LIEM ANH NGUYEN
No. C 70728
Exp 6-30-09
CIVIL
STATE OF CALIFORNIA

HDR Engineering, Inc.
3230 El Camino Real, Suite 200
Irvine, CA 92602



GENERAL NOTES:

1. ALL MATERIAL AND WORK SHALL CONFORM TO THE JULY 2006 STANDARD SPECIFICATIONS AND JULY 2006 STANDARD PLANS OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND SPECIAL PROVISIONS FOR THIS PROJECT.
2. SIGNS SHALL BE DESIGNED TO THE CALTRANS SEPT. 2006 MUTCD INCLUDING REVISIONS, AND HAVE THEIR CURRENT REFLECTIVITY LEVELS. ALL SIGNS SHALL BE INSTALLED AT LEAST 3' BEHIND CURB AT CURB RETURNS AND DRIVEWAYS.
3. ALL PAVEMENT DELINEATIONS WILL BE THERMOPLASTIC.

ALL DIMENSIONS ARE IN FEET
UNLESS OTHERWISE SHOWN

ALTERNATIVE 3

SCALE: 1" = 50

NOT FOR CONSTRUCTION

A-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
Caltrans	LAN SAADATNEJADI	BULBUL GANGULY	LIEM NGUYEN	HCL	

LAST REVISION DATE PLOTTED = 3/26/2008

Appendix B Flora and Fauna Observed

Flora Observed

Ornamental/Landscaped Vegetation

scarlet pimpernel *(Anagallis arvensis)**
lemon-scented gum *(Eucalyptus citriodora)**
cudweed (*Gnaphalium* sp.)
gum tree (*Eucalyptus* spp.)*
sweet gum *(Liquidambar styraciflua)**
prickly lettuce *(Lactuca serriola)*
strigose lotus *(Lotus strigosus)*
myoporum *(Myoporum insulare)**
European olive *(Olea europaea)**
Indian fig *(Opuntia ficus-indica)**
wood sorrel (*Oxalis* sp.)
Canary Island palm *(Phoenix canariensis)**
Pygmy date palm *(Phoenix roebelenii)**
English plantain *(Plantago lanceolata)**
London plane tree *(Platanus x acerfolia)**
California sycamore *(Platanus racemosa)*
coast live oak *(Quercus agrifolia)*
Russian thistle *(Salsola tragus)**
Peruvian pepper tree *(Schinus molle)**
Brazilian pepper tree *(Schinus terebinthifolius)**
spike moss (*Selaginella* sp.)
sowthistle (*Sonchus* sp.)*
Queen palm *(Syagrus romanzoffianum)**
common dandelion *(Taraxacum officinale)**
Chinese (evergreen) elm *(Ulmus parvifolia)**
Spanish dagger *(Yucca gloriosa)**

Various ornamental shrubs and grasses, including maintained turf grass

Ruderal Vegetation

California sagebrush *(Artemisia californica)*
Australian saltbush *(Atriplex semibaccata)**
wild oat (*Avena* sp.)*
coyote bush *(Baccharis pilularis)*
mustard (Brassicaceae family*)**
black mustard *(Brassica nigra)**
Hottentot-fig *(Carpobrotus edulis)**
lamb's quarters *(Chenopodium album)**
Mexican tea *(Chenopodium ambrosioides)**
garland chrysanthemum *(Chrysanthemum coronarium)**
bull thistle *(Cirsium vulgare)*
pampas grass (*Cortaderia* sp.)*
Bermuda grass *(Cynodon dactylon)**
Jimson weed *(Datura wrightii)*
redstem stork's bill *(Erodium cicutarium)**
fennel *(Foeniculum vulgare)**
telegraph weed *(Heterotheca grandiflora)*
wild barley (*Hordeum* sp.)*
goldenbush *(Isocoma menziesii)*
perennial (English) ryegrass *(Lolium perenne)**
chaparral mallow *(Malacothamnus fasciculatus)*
cheeseweed *(Malva parviflora)**
Cucamonga manroot *(Marah macrocarpus)*
slender-leaved ice plant *(Mesembryanthemum nodiflorum)*
African fountain grass *(Pennisetum setaceum)**
bristly ox-tongue *(Picris echioides)**
English plantain *(Plantago lanceolata)**
knotweed (*Polygonum* sp.)*
wild radish *(Raphanus sativus)**
castor bean *(Ricinus communis)**
matilija poppy (*Romneya* sp.)
dock (*Rumex* sp.)

purple sage *(Salvia leucophylla)*
blue elderberry *(Sambucus mexicana)*
Peruvian pepper tree *(Schinus molle)**
poison oak *(Toxicodendron diversilobum)*
purple vetch *(Vicia benghalensis)**

Disturbed Wetlands

sedge (*Carex* sp.)
Bermuda grass *(Cynodon dactylon)**
umbrella plant *(Cyperus involucratus)**
perennial (English) ryegrass *(Lolium perenne)**
bristly ox-tongue *(Picris echioides)**
arroyo willow *(Salix lasiolepis)*
cat-tail (*Typha* sp.)

Fauna

ARACHNIDA (ARACHNIDS)

black widow spider *(Latrodectus mactans)*

HYMENOPTERA (BEES, WASPS, ANTS)

honey bee *(Apis mellifera)*

LEPIDOPTERA (BUTTERFLIES AND MOTHS)

anise swallowtail *(Papilio zelicaon)*
western tiger swallowtail *(Papilio rutulus)*
orange-tip (*Anthocharis* sp.)
common (checkered) white *(Pontia protodice)*
unknown blue (Subfamily Polyommatinae*)*

REPTILIA (REPTILES)

Phrynosomatid Lizards
western fence lizard *(Sceloporus occidentalis)*

AVES (BIRDS)

Cathartidae (American Vultures)
turkey vulture *(Cathartes aura)*

Accipitridae (Kites, Hawks, and Eagles)
Cooper's hawk *(Accipiter cooperii)*
red-tailed hawk *(Buteo jamaicensis)*

Columbidae (Pigeons and Doves)
mourning dove *(Zenaida macroura)*

Trochilidae (Hummingbirds)
Anna's hummingbird *(Calypte anna)*

Picidae (Woodpeckers)

Nuttall's woodpecker *(Picoides nuttallii)*

Tyrannidae (Tyrant Flycatchers)

black phoebe *(Sayornis nigricans)*

Corvidae (Crows and Ravens)

American crow *(Corvus brachyrhynchos)*

Aegithalidae (Bushtits)

bushtit *(Psaltriparus minimus)*

Fringillidae (Finches)

house finch *(Carpodacus mexicanus)*

lesser goldfinch *(Carduelis psaltria)*

MAMMALIA (MAMMALS)

RODENTIA (RODENTS)

Geomyidae (Pocket Gophers)

Botta's pocket gopher *(Thomomys bottae)*

CARNIVORA (CARNIVORES)

Canidae (Foxes, Wolves, and Dogs)

domestic dog *(Canis familiaris)*

Appendix C Wetlands Delineation and Assessment of Jurisdictional Waters Report

Supplemental Wetlands Delineation and Assessment of Jurisdictional Waters Report

Lower State Route 74 Widening Project
Calle Entradero to San Juan Capistrano City/Orange County Boundary

City of San Juan Capistrano

County of Orange

California

12-ORA-74- PM 1.0/1.9

EA 086920

July 28, 2008

Supplemental Wetlands Delineation and Assessment of Jurisdictional Waters Report

Lower SR-74 (Ortega Highway) Widening

Calle Entradero to City of San Juan Capistrano/County Line

12-ORA-74- PM 1.0/1.9

EA086920

July 28, 2008

STATE OF CALIFORNIA
Department of Transportation

Prepared By: _____ Date: 7/31/08

Dan Rosie
(760) 931-5471
LSA Associates, Inc.
20 Executive Park, Suite 200,
Irvine, CA 92614

Approved By: Arianne Preite Date: 11/12/08

Arianne Preite, District Biologist
(949) 724-2704
California Department of Transportation,
District 12

Approved By: _____ Date: 11-12-08

Charles Baker, Chief, Branch C,
Environmental Planning
(949) 724-2252
California Department of Transportation,
District 12

Summary

The following assessment of regulatory jurisdiction has been prepared for use by the United States Army Corps of Engineers (Corps) and the California Department of Fish and Game (CDFG) as part of the agencies' review of their respective jurisdictions under Section 404 of the federal Clean Water Act (CWA) and for Lake or Streambed Alteration Agreement processing under Sections 1600–1616 of the California Fish and Game Code.

The California Department of Transportation (Department) proposes to widen an approximately 4,530 feet (ft) or 0.9 mile (mi) segment of State Route 74 (SR-74), also known as Ortega Highway, from two lanes to four (through) lanes from Calle Entradero [Postmile (PM) 1.0] in the City of San Juan Capistrano (City) to the City of San Juan Capistrano/County of Orange boundary (PM1.9). The proposed Lower State Route 74 Widening Project would include improvements to pedestrian and bicycle facilities, drainage improvements, construction of retaining walls and sound walls, utility improvements, and landscaping.

A delineation of wetlands and other jurisdictional waters within the study area was conducted by biologists Dan Rosie and Elizabeth Delk on May 1, 2008. Three potential jurisdictional features were identified within the study area.

Within the biological study area (BSA), potential jurisdictional wetland and nonwetland waters of the United States (U.S.) subject to Corps jurisdiction totals 0.058 acre (ac), and potential streambed subject to CDFG jurisdiction totals 0.098 ac. Anticipated required permits are a federal CWA Section 404 Letter of Permission or Nationwide Permit 14 authorization from the Corps, a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), and a Fish and Game Code Section 1602 Lake or Streambed Alteration Agreement from the CDFG.

Table of Contents

SUMMARY iii
TABLE OF CONTENTS v
LIST OF FIGURES iv
LIST OF TABLE v
CHAPTER 1 DESCRIPTION OF PROJECT 1
CHAPTER 2 PURPOSE OF ASSESSMENT 3
CHAPTER 3 ENVIRONMENTAL SETTING 4
CHAPTER 4 METHODS 10
CHAPTER 5 RESULTS 12
5.1 DELINEATION OF WETLANDS AND OTHER WATERS 12
Wetland and Nonwetland Waters of the U.S. (Corps) 12
Streambed Resources (CDFG) 12
5.2 FUNCTIONS AND VALUES OF WETLANDS AND OTHER WATERS 13
Wildlife Habitat 13
Endangered Species Habitat 13
Fish Habitat 13
Uniqueness/Heritage 13
Nutrient Production 14
Nutrient Export 14
Flood Storage 14
Water Purification 14
Sediment Retention 15
Sediment Detoxification 15
Groundwater Discharge and Recharge 15
CHAPTER 6 DISCUSSION 16
6.1.1 REGULATORY REQUIREMENTS 16
Definition of Waters of the United States 16
CHAPTER 7 CONCLUSIONS 20
7.1 UNITED STATES ARMY CORPS OF ENGINEERS 20
7.2 CALIFORNIA DEPARTMENT OF FISH AND GAME 20
CHAPTER 8 REFERENCES CITED 21
CHAPTER 9 PERSONAL COMMUNICATIONS CITED 22
APPENDIX A DATA FORMS: ROUTINE WETLANDS DELINEATION A-1

List of Figures

Figure 1 Project Location 2
Figure 2 Aerial Photo with Site Plan Showing Potential Waters of the U.S./Streambeds 6
Figure 3 Site Photos 11

List of Tables

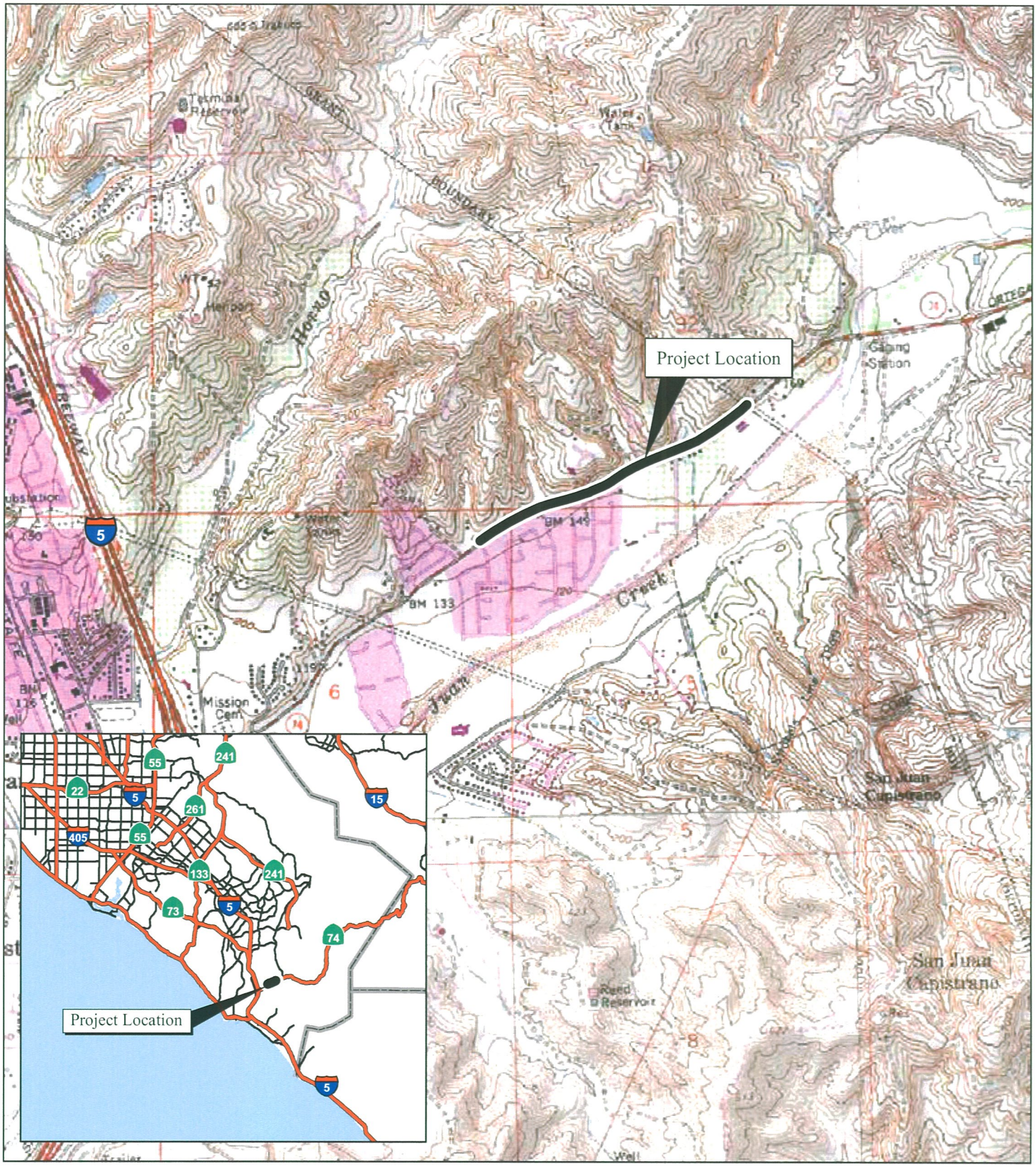
Table A Potential Corps and CDFG Jurisdictional Areas 12

Chapter 1 Description of Project

The California Department of Transportation (Department) proposes to widen an approximately 0.9 mi segment of SR-74, also known as Ortega Highway, from two to four (through) lanes between Calle Entradero (PM 1.0) in the City of San Juan Capistrano (City) to the City /County of Orange boundary (PM1.9). The proposed project would include improvements to pedestrian and bicycle facilities, drainage improvements, construction of retaining walls and sound walls, utility improvements, and landscaping.

The Biological Study Area (BSA) is located in United States Geological Survey (USGS) *San Juan Capistrano, California* 7.5 minute topographical quadrangle, Sections 6 and 32, Township 7 through 8 South, and Range 7 West. The BSA is located west and north of San Juan Creek (Creek) and comprises the limits of the Department right-of-way within the City. The County of Orange boundary is the eastern terminus of the BSA. Interstate 5 (I-5) lies to the west of the BSA. The regional location and project vicinity are shown in Figure 1. The northern side of the BSA contains disturbed conditions typical of roadside shoulders and the southern side of the BSA contains landscaped areas within City right-of-way. Surrounding land uses include low density residential housing (on both the north and south sides of the road), an orchard area (on the north side of the road), and equestrian areas. Ladera Ranch development is located to the north of the BSA. The Donna O'Neill Land Conservancy is located to the southeast of the BSA and the Caspers Wilderness Park is located to the northeast of the BSA.

State Route 74 (SR-74), also known as Ortega Highway, is a major east-west arterial in south Orange County extending from I-5 in the City northeast to Riverside County, where it intersects with Interstate 15 (I-15). SR-74 then extends further northeast toward the City of Palm Desert in Riverside County. The existing SR-74 alignment consists of four through lanes from I-5, then goes into three through lanes, and then at approximately 330 feet (ft) east of Via Cordova, it transitions to two through lanes. The alignment of the existing roadway imposes driving restrictions such as limited sight distance and difficulties in negotiating sharp curves. There are five intersections in the project study area: Calle Entradero, Via Cordova, Via Cristal, Via Erracarte, and Avenida Siega. None of these intersections are signalized. Construction of the project is anticipated to begin in the fall of 2011 and be completed in the fall of 2013.



LSA

FIGURE 1

N

0 1,000 2,000
FEET

Lower SR-74 Widening Project

Regional Location Map

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086900

SOURCE: USGS 7.5' QUAD - SAN JUAN CAPISTRANO ('81), CANADA GOBERNADORA ('88), CALIF.

I:\CDT0801B\GIS\Figure1_NES.mxd (3/12/2008)

Chapter 2 Purpose of Assessment

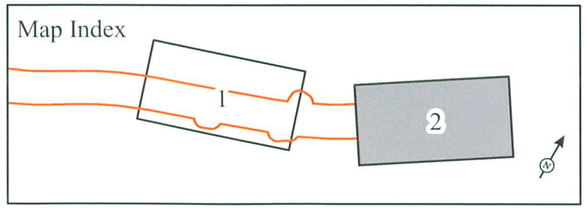
The purpose of this assessment is to delineate wetlands and other jurisdictional waters, to identify a significant nexus to navigable waters, to identify riparian vegetation, to identify functions and values, and to evaluate the regulatory requirements for the potential impacts to wetlands and nonwetland waters of the U.S. This information and analysis have been prepared for use by the Corps and CDFG as part of their review of applications for permit authorization pursuant to Section 404 of the federal CWA and for Streambed Alteration Agreement processing under Section 1602 of the California Fish and Game Code.

LEGEND

- Biological Study Area
- Wetland Waters of the U.S.
- Nonwetland Waters of the U.S.
- CDFG Jurisdiction
- Sheetflow (Nonjurisdictional)
- Soil Pit
- 18" Culvert
- Photograph Locations
- City Boundary

0 25 50 Feet

Map Index



SOURCE:Air Photo USA (2007), Thomas Bros (2007).

I:\CDT0802\GIS\JD_Fig2.mxd (8/5/2008)

FIGURE 2
Sheet 2 of 2

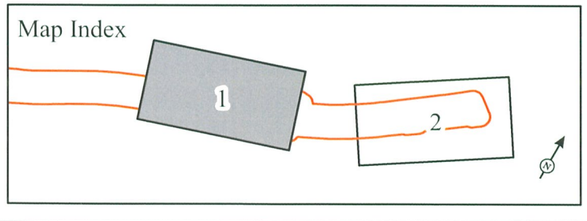
Lower SR-74 Widening Project
Potential CDFG and Corps Jurisdiction
12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

LEGEND

- Biological Study Area
- Wetland Waters of the U.S.
- Nonwetland Waters of the U.S.
- CDFG Jurisdiction
- Sheetflow (Nonjurisdictional)
- Soil Pit
- 18" Culvert
- Photograph Locations
- City Boundary

0 25 50 Feet

Map Index



SOURCE:Air Photo USA (2007), Thomas Bros (2007).

I:\CDT0802\GIS\JD_Fig2.mxd (8/5/2008)

FIGURE 2
Sheet 1 of 2

Lower SR-74 Widening Project
Potential CDFG and Corps Jurisdiction
12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

Chapter 3 Environmental Setting

As shown in Figure 2, the BSA is situated within a primarily low density residential area. The hydrologic features identified within the BSA are the subject of this wetlands delineation and jurisdictional assessment.

Three hydrologic features were identified within the BSA (Figure 2): Features A (Drainage System [DS] 7), B (DS 8), and C (DS 10) (Figure 2, sheets 1 and 2). Photos of each feature are depicted in Figure 3 (Chapter 4). The drainages were evaluated as discussed below; however, it should be noted that the Department regularly mows the area, and site conditions (particularly relative to vegetative cover) are subject to change as a result of current mowing practices.

Feature A (DS 7) is parallel to the north side of SR-74 approximately 100 ft west of the intersection with Via Errecarte. This unnamed feature is the result of an unidentified seep from the adjacent hillside to the north or an unidentified existing culvert. The presence of a culvert was investigated in the field, but not verified. Therefore, it seems likely that the hydrology is a result of a hillside seep. Flows are carried downhill approximately 113 ft (Figure 2, sheet 1). No hydrologic indicators or downstream nexus were observed beyond this point. The runoff is conveyed as sheet flow for approximately 120 ft and is eventually conveyed into an 18-inch vertical culvert, which connects with the existing storm drain system. This feature appears to have a permanent or near-permanent water source and supports hydrophytic vegetation. Three soil pits were analyzed in respect to this feature (see attached data forms Appendix A). All three criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) were met in the first two sample soil pits (SP-1 and SP-2). Although the third soil pit (SP-3) displayed wetland hydrology (surface soil cracks) and hydrophytic vegetation, it did not meet the criteria for hydric soils. Therefore, approximately 0.036 ac of Feature A is potentially jurisdictional wetland waters of the U.S. This 0.036 ac area would also be subject to CDFG jurisdiction as streambed. The remainder of the feature consisted of sheet flow and did not exhibit an ordinary high water mark (OHWM) or meet wetland criteria. Therefore, the remainder of the feature is not considered jurisdictional as a wetland or as nonwetland waters of the U.S. subject to Corps jurisdiction. Due to the lack of a bed, bank, and channel, the remaining portion of sheet flow at Feature A is also not considered to be subject to the jurisdiction of the CDFG.

Feature B (DS 8) consists of a concrete-lined channel that varies from approximately 3 ft in width on the eastern end to approximately 8 ft in width for the remaining portion of the feature. This unnamed feature conveys flows from two separate 18-inch

Feature A1 - Unknown source and SP1, facing east.

Feature A2 - Wetland to sheet flow at SP3, facing east.

Feature A3 - Sheet flow with no OHWM to drain, facing west.

Feature A4 - 18-inch vertical storm drain, facing east.

FIGURE 3a

Lower 74 Widening Project

Site Photos

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

I:\CDT0802\G\JD\JD-Photos-a.cdr (5/22/08)

Feature B1 - 18-inch culvert east source to 3-foot-wide v-ditch, facing east.

Feature B2 - 18-inch culvert west source to 8-foot-wide channel, facing west.

Feature B3 - From east to 2 x 22 box with single willow canopy, facing east.

Feature B4 - From west to 2 x 22 box storm drain, facing east.

FIGURE 3b

Lower 74 Widening Project

Site Photos

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

culverts, one from each of the east and west end points, toward the storm drain (the storm drain is approximately 22 ft long, with the inlet raised approximately 2 ft from the bottom of the channel) in the center of the 8-foot-wide portion of the feature (Figure 2, sheet 1). The OHWM was measured in the field and is approximately 1 ft wide throughout the feature. A storm drain in the center of the feature conveys flows into the existing storm drain system under the road, which are then conveyed downstream through a culvert that is likely to connect with San Juan Creek, although it is unclear where flows are conveyed. No sample soil pits were analyzed in this feature. This feature was determined to be potential jurisdictional nonwetland waters of the U.S. subject to Corps jurisdiction and nonriparian streambed (bed, bank and channel) with the exception of one isolated red willow (*Salix laevigata*) that may potentially be considered subject to CDFG jurisdiction. The canopy of this tree is included in the total CDFG jurisdictional area. Vegetation in and around this feature included ornamental plants such as bougainvillea (*Bougainvillea* sp.) and one red willow tree that emerged through cracks in the concrete channel lining. No other vegetation was present in this channel, which has been previously altered (i.e., likely excavated for flood control purposes and entirely lined with impervious concrete). Soils within the drainage are a result of sedimentation. Within the BSA, Feature B (DS 8) is approximately 240 ft long with an OHWM that is 1 ft wide on average. The total area potentially subject to Corps jurisdiction is 0.005 ac of nonwetland waters of the U.S., and the area potentially subject to CDFG jurisdiction is 0.045 ac.

Feature C (DS 10) conveys storm water and runoff flows from east to west originating from an 18-inch storm drain culvert (Figure 2, sheet 2). The feature is an approximately 400 ft long shallow depression that occurs on the SR-74 westbound shoulder. Flows are then conveyed through an 18-inch box culvert underneath SR-74, south under the road, where it resurfaces. Flows then continue for approximately 90 ft through unpaved driveways and are likely to connect with San Juan Creek, although it is unclear where flows are conveyed and whether or not there is a contiguous OHWM. A sample soil pit (SP4) was analyzed at the eastern terminus of the BSA. Two of the three criteria for wetlands were satisfied (hydric soils and wetland hydrology). Vegetation surrounding the soil pit primarily consisted of garland daisy (*Chrysanthemum coronatum*) (UPL) and bristly ox-tongue (*Picris echioides*) (FAC) and did not meet the criteria for hydrophytic vegetation. Soils were not hydric by standard definitions, but may be considered hydric due to the slightly depleted matrix. The soil pit consisted of many layers of sediment including, fine sand, silt, and clay loam. Hydrologic conditions at SP4 met the conditions for a wetland. Since all three criteria were not satisfied, the feature is potentially a jurisdictional nonwetland waters

of the U.S. and subject to CDFG jurisdiction due to the presence of a defined bed, bank, and channel. The OHWM averages approximately 1 ft in width with the exception of the east end near the culvert where it increases in width as a result of water pooling before being conveyed under SR-74. The total area potentially subject to Corps jurisdiction is 0.017 ac, and the area potentially subject to CDFG jurisdiction is 0.017 ac.

Feature C1 - 18-inch culvert source, facing northeast.

Feature C2 - SP4, facing west.

Feature C3 - Roadside unvegetated non-wetland waters to road culvert, facing east.

Feature C4 - 18-inch road culvert leading in, facing southeast.

Feature C5- 18-inch road culvert leading out, facing south.

Feature C6 - Surface flow with unknown connectivity.

FIGURE 3c

Lower 74 Widening Project

Site Photos

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)
EA# 086920

Chapter 4 Methods

Biologists Dan Rosie and Elizabeth Delk conducted the fieldwork for this assessment on May 1, 2008. Site photos are shown in Figure 3 below. The data sheets are included in Appendix A. The BSA was surveyed on foot and by vehicle to identify and map potential jurisdictional areas and evaluate them according to Corps and CDFG criteria. Only areas to be affected by the proposed project within the Department right-of-way were evaluated. Potential jurisdictional areas were evaluated according to the following:

- Areas supporting species of plant life potentially indicative of wetlands were evaluated according to routine wetland delineation procedures described in the *Corps of Engineers Wetlands Delineation Manual* (1987 Manual) (Environmental Laboratory 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region* (2006 Supplement) (Environmental Laboratory 2006). Where there was a predominance of hydrophytic vegetation, or where the observed hydrologic conditions were indicative of a potentially jurisdictional area, a soil pit was dug and evaluated according to the 1987 Manual and the 2006 Supplement. At each sample point, the dominant and subdominant plant species were identified, and the wetland indicator status of each dominant plant species was noted (per Reed 1988). Soil matrix colors were classified according to the Munsell Soil Color Charts (Munsell Color 2000) and hydrologic conditions were documented. General site characteristics were also noted. A standard data form was completed for each soil pit (see Appendix A). Three soil pits were examined at Feature A (DS 7). No soil pit was examined at Feature B (DS 8), as this feature is concrete lined and therefore precluded excavation and does not function as a wetland. One soil pit was examined at Feature C (DS 10).
- The OHWMs associated with the features having connectivity to jurisdictional features were identified in the field. The widths of the drainages between these OHWMs and the extent of the potential CDFG jurisdiction were measured at representative locations along the drainages to be affected by the proposed project. Based on these field measurements, the boundaries of the potential jurisdictional areas were mapped on an aerial photograph of the subject area (Figure 2). The lengths of drainages within the BSA were determined using geographic information system (GIS) software.

Chapter 5 Results

5.1 Delineation of Wetlands and Other Waters

The following conclusions are based on the observations of trained and experienced wetlands and jurisdictional waters delineators. The conclusions are based on the application of pertinent manuals, regulations, and guidance to the conditions observed within the study area. The conclusions are subject to verification by the Corps and CDFG (regulatory agencies). Potentially jurisdictional areas for each feature are represented below in Table A. As noted above, the area is subject to periodic mowing by the Department, which may result in changes to the conditions of these drainages depending on current mowing practices.

Table A Potential Corps and CDFG Jurisdictional Areas

Feature	Potential Corps Wetland Waters (linear ft/ac)	Potential Corps Nonwetland Waters (linear ft/ac)	Potential CDFG Jurisdictional Streambed (ac)
Feature A (DS 7)	0.036	0	0.036
Feature B (DS 8)	0	0.005	0.045
Feature C (DS 10)	0	0.017	0.017
Total	**0.036**	**0.022**	**0.098**

Wetland and Nonwetland Waters of the U.S. (Corps)

Based on the results of the wetland delineation, the proposed project encompasses a total of 0.058 ac of waters potentially subject to the Corps jurisdiction. Of this total, 0.022 ac are potentially wetland waters and 0.036 ac are potentially nonwetland waters of the U.S.

Streambed Resources (CDFG)

The proposed project encompasses a total of 0.098 ac of streambed potentially subject to CDFG jurisdiction. Feature B (DS 8) is considered nonvegetated streambed, but includes the canopy of the single red willow present in a portion of broken concrete.

5.2 Functions and Values of Wetlands and Other Waters

The following is an assessment of the functions and values attributable to identified potential jurisdictional waters in the study area. All wetlands and other waters have some degree of functionality, and no single wetland can perform all of the functions considered below.

Wildlife Habitat

The habitat within the study area provides minimal habitat value due to the extent of nonnative plant species, the lack of connectivity with other native vegetated movement corridors, the lack of riparian habitat and other vegetated waters within the project limits, and the concrete lining of Feature B (DS 8). Feature A (DS 7) provides a limited amount of disturbed wetland vegetation; however, the vegetated area is small and isolated and is not expected to support substantial or self-sustaining populations of vertebrate wildlife. Also the proximity to the heavily used SR-74 has resulted in disturbed conditions on the road sides. Wildlife species tolerant of such conditions may use the habitat present within the subject features.

Endangered Species Habitat

There are currently no endangered species using the waters within the study area. The value of the habitat for endangered species is considered very low due to the disturbed nature of and limited extent of mature vegetation within the proposed project limits, the lack of connectivity with other riparian and vegetated movement corridors, the preponderance of nonnative plant species, and the concrete lining of the Feature B (DS 8) within the BSA.

Fish Habitat

Due to the intermittent and ephemeral nature of the features within the study area, there is no habitat for fish within the BSA.

Uniqueness/Heritage

The habitats associated with the features in the study area are typical of those found in disturbed drainage systems. Historic resources exist in the project area, however none of these are associated with the existing drainage features; therefore, this function is essentially absent from the study area.

Nutrient Production

Riparian and wetland systems in general are much more productive with regard to nutrients than upland habitats; however, the limited vegetation within Feature B (DS 8) on-site is supported by dynamic sediment deposition that is subject to scouring during and following storm events due to the underlying concrete associated with Feature B (DS 8). The nutrient production in the remainder of the study area, including the small wetland area associated with Feature A (DS 7) is not expected to be substantial based primarily on the relatively small area of the features. Therefore, this function is considered to be of low value to biological resources downstream and in the surrounding areas.

Nutrient Export

This function is considered a low value for the vegetation located within the features in the study area due to the disturbed condition of the drainages. Although flows may carry some nutrients derived from the decomposition of organic matter in the features within the study area to potentially productive areas downstream via the storm drain system, this function is considered to be of low value within the BSA.

Flood Storage

There are no wetlands outside the features that would provide overbank flood storage. The vegetation within the potentially jurisdictional features is subject to scouring, does not substantially absorb wave energy to reduce erosion, and only assists minimally in the reduction of sediment deposition. Additionally, some of the culvert inlets on the north side of SR-74 are partially obstructed which could result in roadside flooding during storm events. Flood storage is thus considered a low value of the features within the BSA.

Water Purification

Upstream runoff from predominantly urban land uses in the proposed project area can contain toxins and other contaminants. These include residual pesticides, fertilizers, and petroleum products. The features within the study area have little to no potential to act as a filtration system for these and similarly undesirable compounds. Some of the toxins and other pollutants that may be present during periods of peak runoff are absorbed and decompose before they are allowed to reach downstream waters, including San Juan Creek. The diverse array of microfauna potentially present in these features can aid in the metabolism of many pollutants. These features may also

remove suspended solids from runoff, thus reducing the turbidity of the water downstream.

The total area and quantity of vegetation within these on-site features is small, which reduces the quantity of toxins and other contaminants trapped and deposited in the substrate. Water purification is considered a low value of the vegetation within the BSA.

Sediment Retention

The vegetation within the features on-site reduces water flows and traps some suspended solids, including sediment and organic matter. This assists in reducing the sediment load downstream and decreases some downstream turbidity; however, this vegetation is limited in extent and is of low value for sediment retention.

Sediment Detoxification

The combination of sediment retention by freshwater marsh vegetation and other vegetated waters, and the presence of microorganisms with the potential to metabolize unwanted compounds, allows for sediment detoxification in many wetland areas. The vegetation within the study area, particularly within Feature A (DS 7), may serve in this capacity to a limited extent, but is considered only of low value due to the small area of vegetation present.

Groundwater Discharge and Recharge

The vegetation, hydrology, and sediments within these features appear to be the product of urban runoff and a hillside seep (Feature A [DS 7]). Features A (DS 7) and C (DS 10) allow for some recharge of groundwater within the BSA. Feature B (DS 8) is entirely lined with concrete; although it is broken, with several large cracks along the side walls throughout the feature, it provides negligible groundwater discharge and recharge within the BSA. The potential benefits are not substantial, given the small amount of vegetation present in Features A (DS 7) and C (DS 10); therefore, this is considered a low value of the habitat within the BSA.

Chapter 6 Discussion

6.1 Regulatory Requirements

The Corps regulates discharges of dredged or fill material into waters of the U.S. These waters include wetlands and nonwetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate or foreign commerce. The Corps regulatory jurisdiction pursuant to Section 404 of the federal CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations. In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics if normal circumstances are present: hydrophytic vegetation, hydric soils, and wetland hydrology. However, under certain special circumstances, only two of the three wetland characteristics may be discernible. When it is demonstrated that the special circumstances are due to natural processes of recent disturbances, the Corps can determine that the presence of two of the three characteristics is sufficient to determine that the area is a wetland. Each characteristic has a specific set of mandatory wetland criteria.

Definition of Waters of the United States

The following definition of waters of the U.S. is taken from the discussion provided at 33 CFR 328.3:

"The term waters of the United States means:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce . . . ;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams) . . . the use, degradation or destruction of which could affect interstate or foreign commerce . . . ;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters defined in paragraphs (a) (1)–(4) of this section;"

On January 9, 2001, the Supreme Court issued a decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC) concerning CWA jurisdiction over isolated waters. This decision substantially affected the extent of Corps regulatory authority over "non-navigable, isolated, intrastate waters" and, particularly, the use of indirect indicators of interstate commerce (e.g., use by migratory birds that cross state lines) as a basis for jurisdiction.

(1) In 2006, the United States Supreme Court further considered the Corps jurisdiction of "waters of the United States" in the consolidated cases Rapanos v. United States and Carabell v. United States (126 S. Ct. 2208), collectively referred to as Rapanos. The Supreme Court concluded that wetlands are "waters of the United States" if they significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as navigable. On June 5, 2007, the Corps issued guidance regarding the Rapanos decision. This guidance states that the Corps will continue to assert jurisdiction over traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent nonnavigable tributaries that have a continuous flow at least seasonally (typically three months), and wetlands that directly abut relatively permanent tributaries. The Corps will determine jurisdiction over waters that are nonnavigable tributaries that are not relatively permanent and wetlands adjacent to nonnavigable tributaries that are not relatively permanent only after making a significant nexus finding. Furthermore, the preamble to Corps regulations (Preamble Section 328.3, Definitions) states that the Corps does not generally consider the following waters to be waters of the United States. The Corps does, however, reserve the right to regulate these waters on a case-by-case basis. Nontidal drainage and irrigation ditches excavated on dry land
(2) Artificially irrigated areas that would revert to upland if the irrigation ceased
(3) Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing

(4) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons
(5) Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for purposes of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.

Often, waters found to be isolated and not subject to Corps regulation are still regulated by the RWQCB under the State Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The Corps typically regulates as waters of the U.S. any body of water displaying an OHWM. Corps jurisdiction over nontidal waters of the U.S. extends laterally to the OHWM or beyond the OHWM to the limit of any adjacent wetlands, if present (33 CFR 328.4). The OHWM is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3).

The California RWQCBs are responsible for the administration of Section 401 of the CWA. The project is within the jurisdiction of the Santa Ana RWQCB. Water quality certification under Section 401 is only required as part of an application process for certain federal licenses or permits. The applicable federal permit in this case is a Corps Section 404 Permit.

The CDFG, through provisions of the California Fish and Game Code (Sections 1600–1616), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined as having a channel bed and banks and at least a periodic flow of water. The CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFG.

Therefore, if the Corps and/or CDFG choose to assert jurisdiction over the subject drainages evaluated in this assessment, a Section 404 Permit (i.e., Letter of Permission[1] or Nationwide Permit No. 14 [NWP 14]), a Section 401 water quality certification, and a Section 1602 Streambed Alteration Agreement will be required. Compensatory mitigation may be required to offset the loss of jurisdictional waters. The final determination of what is jurisdictional within the study area and whether mitigation will be required for such impacts is ultimately subject to the discretion of the agencies (i.e., CDFG, Corps, and RWQCB) during the federal and State regulatory processes.

[1] In consultation conducted between the Department and the Corps (as summarized in the Natural Environment Study for the project dated June 2007), the Corps has indicated willingness to authorize the project under the San Juan Creek and Western San Mateo Creek Watershed Special Area Management Plan (SAMP) using a Letter of Permission.

Chapter 7 Conclusions

7.1 United States Army Corps of Engineers

The proposed project contains 0.058 ac of potential jurisdictional waters subject to Corps jurisdiction. 0.036 ac of this area are potential wetland waters of the U.S and 0.022 ac are potential nonwetland waters of the U.S. A Section 404 Letter of Permission (LOP) or NWP for linear transportation projects will be required. Potentially jurisdictional portions of Feature A (DS 7) are approximately 113 ft long. The jurisdictional portion of Feature B (DS 8) is approximately 240 ft long. Jurisdictional portions of Feature C (DS 10) are approximately 400 ft on the north side of the road and the jurisdictional portion on the south side of the road is approximately 90 ft long.

The conclusions presented above are subject to verification by the Corps.

7.2 California Department of Fish and Game

The project contains 0.098 ac of streambed potentially subject to CDFG jurisdiction. Feature B (DS 8) is considered to be nonriparian streambed due to the lack of suitable riparian species with the exception of one isolated willow that has grown through a failed portion of the concrete lined feature (mapped CDFG jurisdiction includes the canopy of this willow). The isolated willow present in the feature does not provide riparian habitat, but is considered jurisdictional to the extent of the canopy dripline. It is anticipated that the CDFG would authorize the alterations of jurisdictional streambed for project construction under a Section 1602 Lake or Streambed Alteration Agreement.

The conclusions presented above are subject to verification by the CDFG.

Chapter 8 References Cited

California Department of Transportation. 2007. Natural Environment Study SR-74 (Ortega Highway), San Juan Capistrano City Widening. EA 086900.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. Vicksburg, Mississippi.

Environmental Laboratory. 2006. *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region.* Technical Report ERDC/EL TR-06-16. Vicksburg, Mississippi.

Reed, Jr., P.B. 1988. *National List of Plant Species That Occur in Wetlands: California (Region 0).* United States Fish and Wildlife Service Biological Report 88 (26.10).

Munsell Color. 2000 (rev. ed.). *Munsell Soil Color Charts.* Macbeth Division of Kollmorgen Instruments Corporation, New Windsor, NY.

Chapter 9 Personal Communications Cited

Not applicable.

Appendix A Data Forms: Routine Wetlands Delineation

P:\CDT0802A - Lower 74\Biology\Lower 74 JD November Final.doc

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lower SR-74 Widening City/County: San Juan Cap/Orange Sampling Date: 5/1/08

Applicant/Owner: Caltrans D-12 State: CA Sampling Point: SP1

Investigator(s): Section, Township, Range:

Landform (hillslope, terrace, etc.): Roadside Local relief (concave, convex, none): Slope (%):

Subregion (LRR): C Lat: Long: Datum:

Soil Map Unit Name: NWI classification:

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 X No	Is the Sampled Area within a Wetland? Yes X No
Hydric Soil Present?	Yes X No	
Wetland Hydrology Present?	Yes X No	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiolepis	50	Y	FACW
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Typha domingensis	30	Y	OBL
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Picris echioides	10	Y	FAC
2. Cyperus eragrostis	1	N	
3. Polypogon monspeliensis	2	N	
4. Polypogon interruptus	3	N	
5. Melilotus alba	1	N	
6. Carduus pycnocephalus	1	N	
7.			
8.			
Total Cover:			
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: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	1	x 1 =	1
FACW species	1	x 2 =	2
FAC species	1	x 3 =	3
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	3 (A)		6 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

X 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:

SOIL

Sampling Point: SP1

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 Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-4								Root/organic layer
4-16+	10YR 4/1	97	5YR 4/6	3	C	M,PL	silty clay	

[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)
- X 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 X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- X 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 X No ___ Depth (inches): Ø

Wetland Hydrology Present? Yes X No ___

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

Remarks: Water source unidentified (culvert or seep).

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lower SR-74 Widening City/County: San Juan Cap/Orange Sampling Date: 5/1/08
Applicant/Owner: Caltrans D-12 State: CA Sampling Point: SP2
Investigator(s): D. Rosie and L. Delk Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Roadside Local relief (concave, convex, none): _____ Slope (%): _____
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 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 X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Typha domingensis	25	Y	OBL
2. Lolium multiflorum	20	Y	FAC
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Aster subulatus (Symphotrichum)	20	Y	FACW
2. Polypogon interruptus	15	Y	OBL
3. Cyperus eragrostis	3	N	
4. Picris echioides	10	N	
5. Cynodon dactylon	10	N	
6. Sorghum halapense	2	N	
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

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

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species 2	x 1 =	2
FACW species 1	x 2 =	2
FAC species 1	x 3 =	3
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: 4 (A)		7 (B)

Prevalence Index = B/A = 1.75

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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:
Typical Wetland vegetation.

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/1	100						
4-12+	10YR 3/1	~70	5YR 4/6	3	C	M	clay	
4-12+	10YR 4/2	~30						

[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)
- X 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)
- X Depleted Matrix (F3)
- X 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 X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X 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)
- X 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 X No ___ Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Ø

Wetland Hydrology Present? Yes X No ___

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

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lower SR-74 Widening City/County: San Juan Cap/Orange Sampling Date: 5/1/08
Applicant/Owner: Caltrans D-12 State: CA Sampling Point: SP3
Investigator(s): D. Rosie and L. Delk Section, Township, Range:
Landform (hillslope, terrace, etc.): Roadside Local relief (concave, convex, none): Slope (%):
Subregion (LRR): C Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
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 X No	Is the Sampled Area within a Wetland? Yes No X
Hydric Soil Present?	Yes No X	
Wetland Hydrology Present?	Yes X No	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Cynodon dactylon	80	Y	FAC
2. Cyperus eragrostis	3	N	
3. Lolium multiflorum	3	N	
4. Plantago major	2	N	
5.			
6.			
7.			
8.			
Total Cover:			
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: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (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 1	x 3 = 3
FACU species	x 4 =
UPL species	x 5 =
Column Totals: 1 (A)	(B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
X 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:
Not typical wetland vegetation.

SOIL

Sampling Point: SP3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	~100	none				Sandy clay loam	
6-12+	2.5Y 5/2+	~100	none				Sandy clay loam	

[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:

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**)
- X 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 X No _____

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

Remarks: No ordinary high water mark (sheet flow).

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lower SR-74 Widening City/County: San Juan Cp/Orange Sampling Date: 5/1/08
Applicant/Owner: Caltrans D-12 State: CA Sampling Point: SP4
Investigator(s): D. Rosie and L. Delk Section, Township, Range:
Landform (hillslope, terrace, etc.): Roadside Local relief (concave, convex, none): Slope (%):
Subregion (LRR): C Lat: Long: Datum:
Soil Map Unit Name: NWI classification:
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 X No ___	
Wetland Hydrology Present?	Yes X No ___	

Remarks:

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Chrysanthemum coronarium	30	Y	UPL
2. Picris echioides	15	Y	FAC
3. Artemisia californica	5	N	
4. Cynodon dactylon	3	N	
5. Vicia sp.	2	N	
6. Conyza canadensis	1	N	
7. Salsola tragus	1	N	
8. Sonchus oleraceous	1	N	
Total Cover:			
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: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ___	x 1 = ___
FACW species ___	x 2 = ___
FAC species 1	x 3 = 3
FACU species ___	x 4 = ___
UPL species 1	x 5 = 5
Column Totals: 2 (A)	8 (B)

Prevalence Index = B/A = 4

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:

SOIL

Sampling Point: SP4

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 Features %	Type[1]	Loc[2]	Texture	Remarks
0-6								recent sediment
6-12+	10 YR 3/1	90		<1	C	M	clay loam	young sediment

[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)
- X 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 X No ____

Remarks: Soil pit consisted of many very thin layers of sediment of fine sand, silt, or clay loam. F3 criteria met barely. Soils not hydric by most standards.

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**)
- X 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**)
- X Sediment Deposits (B2) (**Riverine**)
- X 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 X No ____

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

Remarks: Apparent sediment contaminated culvert storm flows deposit here and settles before continuing west roadside.

Appendix D USFWS Species List and Correspondence

Adrianne Beazley

From: Sally_Brown@fws.gov
Sent: Tuesday, April 08, 2008 10:40 AM
To: Adrianne Beazley
Subject: Re: SR-74 species list update

Adrianne,
Critical habitat for the coastal California gnatcatcher was designated in December 2007. The 2000 proposed critical habitat came right up to the road alignment, but the new final critical habitat does not. The nearest location for gnatcatcher critical habitat is about half a mile south of the project in the hills on the other side of San Juan Creek. This is the only change from the species list we sent in 2006 (FWS-OR-1688.7).
~~~~~~~~~~~~~~~~~~~

Sally Brown
U. S. Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, CA 92011
(760) 431-9440 x278
(760) 918-0638 fax
Sally_Brown@fws.gov

"Adrianne Beazley" <Adrianne.Beazley@lsa-assoc.com>
04/08/2008 09:23 AM

To <Sally_Brown@fws.gov>
cc
Subject SR-74 species list update

Hi Sally,

I got your voicemail message this morning about the species list for SR-74.
If you could confirm the information you provided in an e-mail that I can print and attach to the 2006 species list, that would be great. We don't need a whole new list if there's just the one change.

Thanks so much!

-Adrianne

Adrianne Beazley
Sr. Biologist/Sr. Environmental Planner
LSA Associates, Inc.
703 Palomar Airport Road, Suite 260
Carlsbad, CA 92011
(760) 931-5471 (office)|(760) 918-2458 (fax)
(760) 271-0503 (mobile)
Adrianne.Beazley@LSA-Assoc.com
~~~~~~~~~~~~~~~~~~~

LSA

LSA ASSOCIATES, INC.
PACIFIC CENTER
703 PALOMAR AIRPORT RD., SUITE 260
CARLSBAD, CALIFORNIA 92011

760.931.5471 TEL
760.918.2458 FAX

BERKELEY
COLMA
FORT COLLINS
IRVINE
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROCKLIN
SAN LUIS OBISPO

March 13, 2008

Ms. Karen Goebel
United States Fish and Wildlife Service
6010 Hidden Valley Road
Carlsbad, California 92011

Subject: Request for Species List for the State Route 74 Ortega Highway Widening Project, City of San Juan Capistrano, Orange County, California; LSA Project No. CDT0801B

Dear Ms. Goebel:

LSA Associates, Inc. (LSA) is submitting this letter to request an updated list of species that may occur in the vicinity of the subject project. The proposed project site is located within portions of Sections 31 and 32 in Township 7 South, Range 7 West, and Sections 5 and 6 in Township 8 South, Range 7 West, in the *San Juan Capistrano, California* 7.5-minute United States Geological Survey topographic quadrangle (see attached Figure 1).

LSA is a non-federal representative preparing a supplement to the California Department of Transportation (Caltrans) Natural Environment Study for the project. Caltrans has provided us with copies of the following United States Fish and Wildlife Service (Service) letters:

- Species List for the State Route 74 Widening Project in the City of San Juan Capistrano, Orange County, California (reference FWS-OR-1688.7), dated August 7, 2006
- Notice of Preparation of a Draft Environmental Impact Report for the Widening of State Route 74 (Ortega Highway) Between Calle Entradero and the Unincorporated Orange County/San Juan Capistrano Boundary, City of San Juan Capistrano, County of Orange, California (reference FWS-OR-08B0254-08TA0365), dated February 13, 2008

The purpose of the current request is to inquire whether the Service would like to provide an update to the Species List received on August 7, 2006.

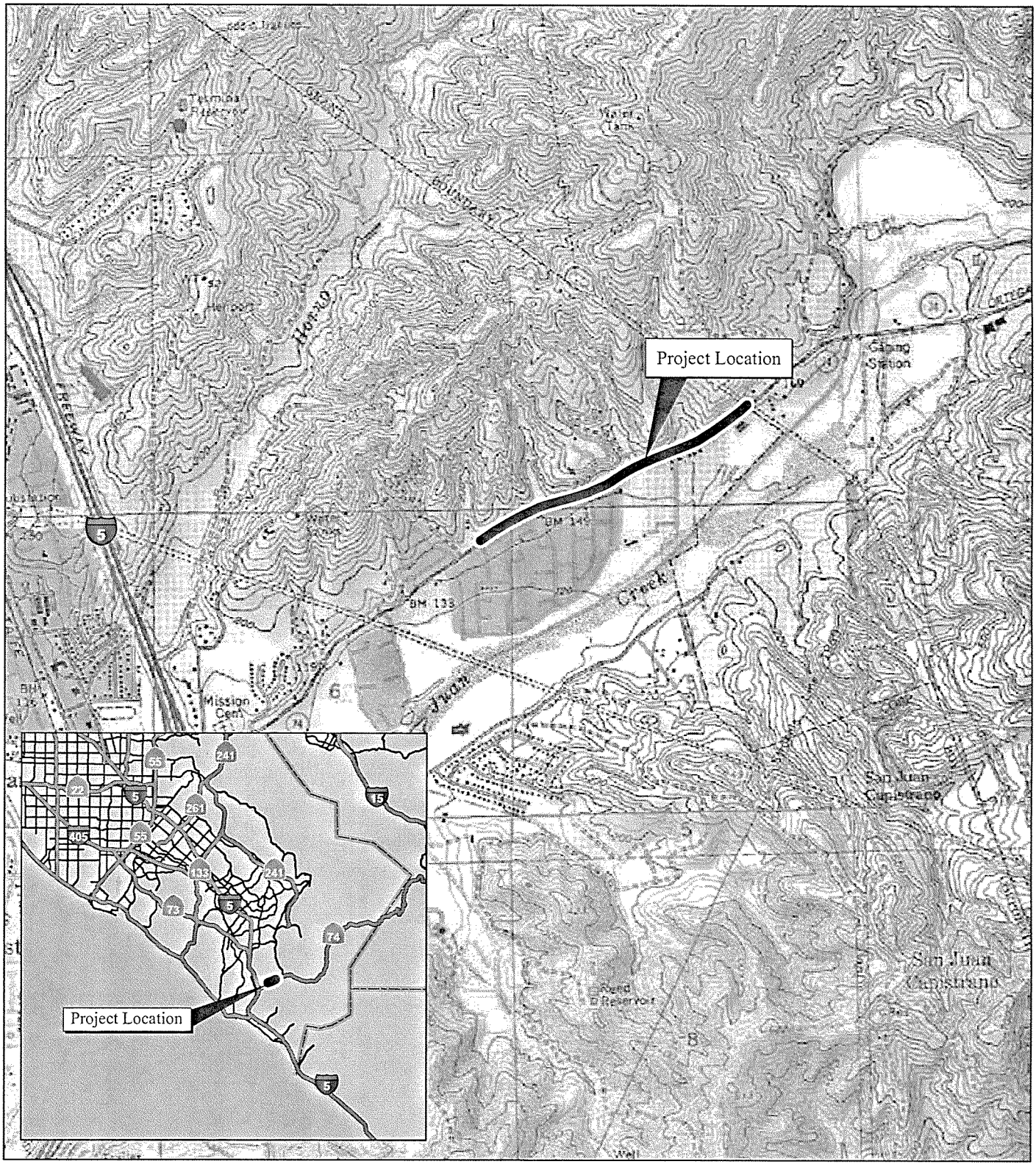
Please contact me at (760) 931-5471 if you have any questions regarding this request. Thank you for your assistance.

Sincerely,

LSA ASSOCIATES, INC.

Adrianne Beazley
Senior Biologist

Attachment: Figure 1



LSA

FIGURE 1

N

0 1,000 2,000 FEET

Lower SR-74 Widening Project

Regional Location Map

12-ORA-74 PM 1.0/1.9 (KP 1.7/3.0)

EA# 086900

SOURCE: USGS 7.5' QUAD - SAN JUAN CAPISTRANO ('81), CANADA GOBERNADORA ('88), CALIF.

I:\CDT0801B\GIS\Figure1_NES.mxd (3/12/2008)

Received Aug 14, 2006

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road
Carlsbad, California 92011

In Reply Refer To:
FWS-OR-1688.7

AUG 0 7 2006

Arianne Glagola
California Department of Transportation
District 12
3337 Michelson Drive, Suite CN380
Irvine, California 92612-0699

Subj: Species List for the State Route 74 Widening Project in the City of San Juan Capistrano, Orange County, California

Dear Ms. Glagola:

This letter is in response to your written request, received on August 4, 2006, for information on federally endangered, threatened, and proposed species that occur in the vicinity of the State Route 74 widening project in the City of San Juan Capistrano, Orange County, California. To assist you in evaluating the potential occurrence of federally listed endangered, threatened, proposed, and candidate species that may occur in the vicinity of the area identified, we are providing the enclosed list.

Section 7 of the Endangered Species Act of 1973 (Act), as amended, requires Federal agencies to consult with us, the U.S. Fish and Wildlife Service, should it be determined that their actions may affect federally listed threatened or endangered species. Section 9 of the Act prohibits the "take" (e.g., harm, harassment, pursuit, injury, kill) of federally listed wildlife. "Harm" is further defined to include habitat modification or degradation where it kills or injures wildlife by impairing essential behavioral patterns including breeding, feeding, or sheltering. Take incidental to otherwise lawful activities can be authorized under sections 7 (Federal consultations) and 10 (habitat conservation plans) of the Act.

If a proposed project is authorized, funded, or carried out by a Federal agency and may affect a listed species, then the Federal agency must consult with us on behalf of the applicant, pursuant to section 7 of the Act. In other words, any activity on private land that requires Federal involvement (such as the issuance of a section 404 permit under the Clean Water Act by the U.S. Army Corps of Engineers) and may affect listed species must be reviewed by us to ensure that the continued existence of the species would not be jeopardized. During the section 7 process, measures to avoid and minimize project effects to listed species and their habitat will be identified and incorporated into a biological opinion that includes an incidental take statement that authorizes incidental take by the Federal agency and applicant.

If a proposed project does not involve a Federal agency, but is likely to result in the take of a listed animal species, then the landowner or project proponent should apply for an incidental take permit, pursuant to section 10 of the Act. When an application is made for an incidental take permit, measures to avoid, minimize, or mitigate for effects to listed species and their habitat will be identified and incorporated into a habitat conservation plan. If the habitat conservation plan and the application for the permit meet the issuance criteria, a permit authorizing incidental take is issued.

We do not have site-specific information for this area. Therefore, we recommend that project proponents seek assistance from a biologist familiar with the habitat conditions and associated species in and around their project site to assess the actual potential for direct, indirect and cumulative impacts likely to result from the proposed activity.

In addition to the species on the enclosed list, we are also concerned for the following habitat community types that could potentially occur in the area and are becoming more rare. These include riparian, oak woodlands, coastal sage scrub, maritime chaparral, native grasslands, vernal pool, and wetland habitat.

Please contact the California Department of Fish and Game for State-listed and other sensitive species that may occur in the area of the project. State-listed species are protected under the provisions of the California Endangered Species Act. Rare plant species that may occur in the project area are included in the California Native Plant Society's (CNPS) inventory of rare and endangered vascular plants in California. State-listed and CNPS species require full consideration under the California Environmental Quality Act.

Should you have any questions regarding the species list provided, or your responsibilities under the Act, please contact Fish and Wildlife Biologist Jonathan Snyder of my staff at (760) 431-9440 extension 307.

Sincerely,

Jonathan Snyder

for Karen A. Goebel
Assistant Field Supervisor

Enclosure

Federally Endangered, Threatened, Proposed, and Candidate Species that May Occur in the Vicinity of the State Route 74 Widening Project in the City of San Juan Capistrano, Orange County, California

August 7, 2006

Common Name	Scientific Name	Federal Status
Amphibians		
arroyo toad	*Bufo californicus*	endangered
Birds		
southwestern willow flycatcher	*Empidonax traillii extimus*	endangered
bald eagle	*Haliaeetus leucocephalus*	threatened
coastal California gnatcatcher	*Polioptila californica californica*	threatened, critical habitat
least Bell's vireo	*Vireo bellii pusillus*	endangered
Crustaceans		
San Diego fairy shrimp	*Branchinecta sandiegonensis*	endangered
Riverside fairy shrimp	*Streptocephalus woottoni*	endangered
Fish		
southern steelhead*	*Oncorhynchus mykiss*	endangered
Plants		
thread-leaved brodiaea	*Brodiaea filifolia*	threatened
Laguna Beach live-forever	*Dudleya stolonifera*	threatened
big-leaved crownbeard	*Verbesina dissita*	threatened

* Under jurisdiction of NOAA Fisheries; contact that agency for more information on southern steelhead.