Exposition Metro Line Construction Authority

Exposition Corridor Transit Project Phase 2

Final Environmental Impact Report

Technical Background Report

FINAL

Natural Environment Study

December 2009

Prepared for:

Exposition Metro Line Construction Authority

By:

PBS&J

ERRATA

The Exposition Metro Line Construction Authority (Expo Authority) has determined that the bike path and Second Street Santa Monica Terminus are no longer under consideration as part of the Expo Phase 2 Light-Rail Transit project. This Technical Background Report was drafted prior to the final definition of the LRT Alternatives that was presented in the Draft Environmental Impact Report (DEIR). Accordingly, discussion of the bike path and Second Street Santa Monica Terminus still remain in this report but no longer apply and should be disregarded.

Summary

This report considers the implications to natural resources of improved transit service in Phase 2 of the Exposition Corridor Transit Project, which is located in west Los Angeles County, from the City of Culver City to the City of Santa Monica. The proposed Exposition Corridor Transit Project Phase 2 (referred to as either the Expo Phase 2 project or proposed project) would involve the implementation of new or upgraded corridor transit solutions within a western portion of Los Angeles County, in the cities of Los Angeles, Culver City, and Santa Monica. Three alternatives are analyzed. The alternatives include the No-Build, Transportation Systems Management (TSM), and four LRT Alternatives. The LRT Alternative includes two optional alignments on the east end connecting to the Phase 1 terminus station and two options on the west end connecting to the Santa Monica terminus station at 4th Street and Colorado Avenue or Colorado Avenue and Main Street. There would be roadway and transit service improvements associated with the No-Build Alternative or the TSM Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project.

Each LRT Alternative alignment option is made up of different segments, which combine to form one of the two potential alignments. This Natural Environment Study discusses impacts to biological resources at the segment level. Each segment was surveyed by biologists on foot for sensitive resources or habitats capable of supporting sensitive resources.

In general, this portion of Los Angeles County is highly urbanized, and because of this, natural resources within the segments are limited. The study area supports only urban landscaping and a relatively small area of nonnative, ruderal vegetation. Wildlife resources are similarly limited to those species adapted to surviving in highly urbanized environments. Review of information from available databases, coupled with foot-surveys of all segments, indicate that there are few biological resources potentially affected by the proposed project. The only resources considered to be sensitive are some of the street trees, nesting birds protected by federal and state regulations found on all segments.

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Abbreviated Terms

BMP	Best Management Practice
BRT	Bus Rapid Transit
CalEPA	California Environmental Protection Agency
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	Army Corps of Engineers
CWA	Clean Water Act
FESA	Federal Endangered Species Act
ft.	foot/feet
FTA	Federal Transit Administration
I-10	Interstate 10
I-405	Interstate 405
immediate vicinity	within 1 mile of the study area
LADOT	Los Angeles Department of Transportation
LCP	Local Coastal Program
LRT	Light-Rail Transit
LRV	Light-Rail Vehicle
MBTA	Migratory Bird Treaty Act of 1918
Metro	Metropolitan Transportation Authority
mph	miles per hour
msl	mean sea level
near	within the eight USGS 7.5-minute quadrangles that contain and surround the study area
NES	Natural Environment Study
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NOP	Notice of Preparation
Ord	Ordinance
PBS&J	Post, Buckley, Schuh, & Jernigan, Inc.
Porter-Cologne Act	Porter-Cologne Water Quality Act of 1970
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
State	State of California
Study Area	Segments: 1, 1a, 1b, 2, and 3
SWRCB	State Water Resource Control Board
TSM	Transportation System Management
U.S.	United States of America
USC	United States Code
USGS	United States Geological Survey
USFWS	United States Fish and Wildlife Service
vicinity	within 5 miles of the study area

1. INTRODUCTION

1.1 Overview

This Natural Environment Study (NES) considers the implications to natural resources of improved transit service in Phase 2 of the Exposition Corridor Transit Project, which is located in west Los Angeles County, from the City of Culver City to the City of Santa Monica, as shown in Figure 1-1 (Project Location). In general, this portion of Los Angeles County is highly urbanized, and because of this, natural resources within the segments are limited. The study area supports only urban landscaping and a relatively small area of nonnative, ruderal vegetation. Wildlife resources are similarly limited to those species adapted to surviving in highly urbanized environments.

1.2 Project Summary

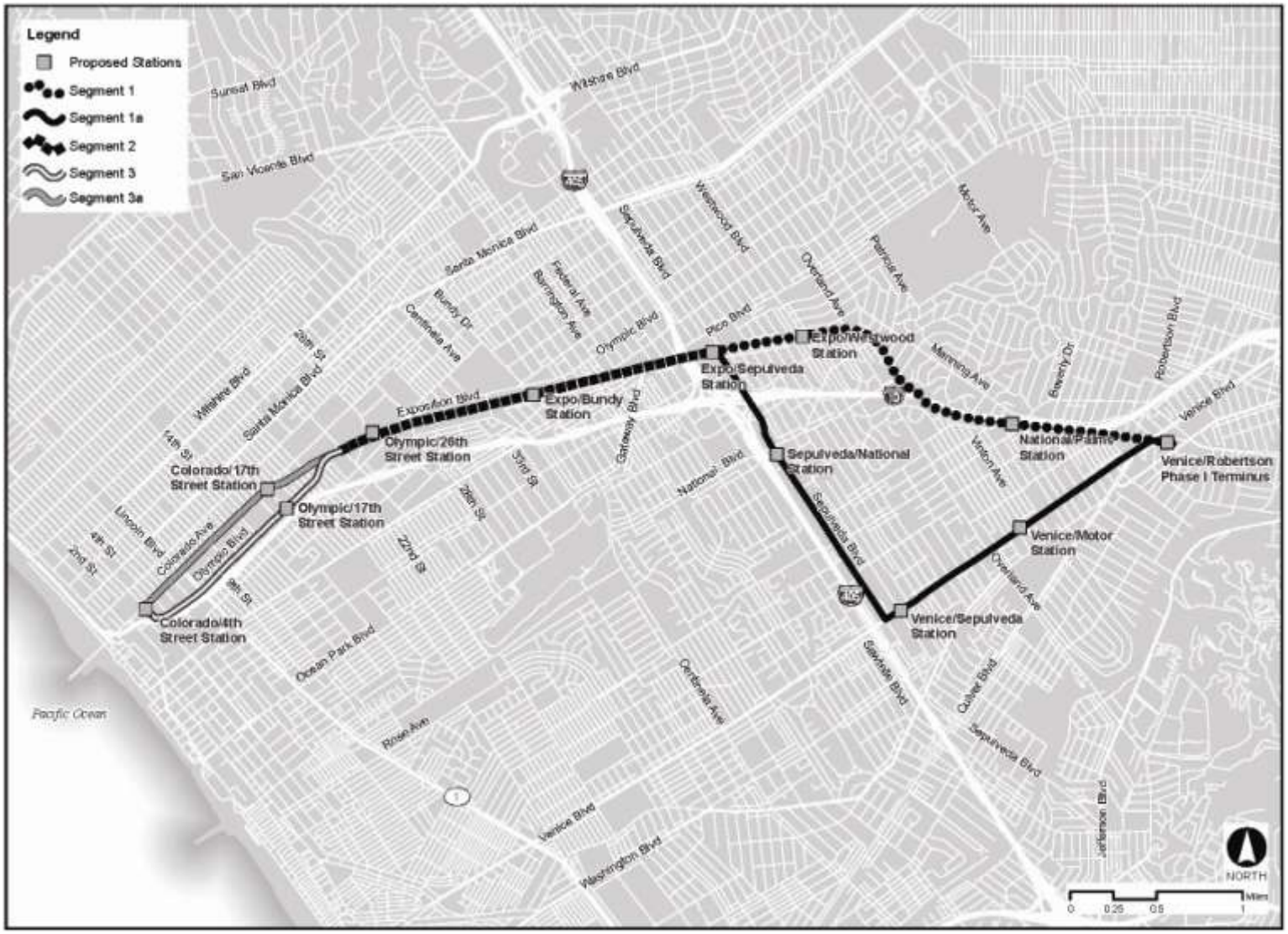
The proposed Exposition Corridor Transit Project Phase 2 (referred to as either the Expo Phase 2 project or proposed project) would involve the implementation of new or upgraded corridor transit solutions within a western portion of Los Angeles County in the cities of Los Angeles, Culver City, and Santa Monica. Six alternatives are analyzed. The alternatives include the No-Build Alternative, Transportation System Management (TSM) Alternative, and four Light-Rail Transit (LRT) Alternatives. A brief description of these alternatives is provided below.

1.2.1 No-Build Alternative

The No-Build Alternative includes only Metro service features that currently exist or have been explicitly committed for project buildout in the year 2030. As such, the No-Build Alternative includes existing fixed guideway Metro Rail and Metro Liner bus rapid transit (BRT) systems currently under operation, the full implementation of the Metro Rapid Bus program, represented as twenty-eight routes across Los Angeles County, and planned peak-only rapid bus lanes along Wilshire Boulevard between Western Avenue and Bundy Drive. The rest of the bus network is based on June 2007 service patterns for Metro, Los Angeles Department of Transportation (LADOT), Culver City, and Santa Monica Big Blue Bus, as well as committed enhancements to those services anticipated by 2030. Based on direction from Metro, their bus fleet will be assumed to include a mix of articulated and higher-capacity 45-foot buses in 2030.

1.2.2 Transportation Systems Management (TSM) Alternative

The TSM Alternative seeks to address the corridor transit needs without major capital investments and includes the improvements outlined in the No-Build Alternative plus three additional components. These three components include (1) addition of a rapid bus route connecting downtown Culver City with downtown Santa Monica; (2) associated service improvements on selected north/south routes to feed stations along the new rapid bus route; and (3) service improvements on selected routes, connecting Westside communities to the Phase 1 Terminus.



Source: PBS&J, ESRI 2009

Figure 1-1 Project Location

1.2.3 Light-Rail Transit (LRT) Alternatives

LRT is defined as a metropolitan electric railway system characterized by its ability to operate single cars or short trains along exclusive rights-of-way at ground level, on aerial structures, in subways, or, occasionally, in streets, and to board and discharge passengers at track or car-floor level. Light-rail vehicles are driven electrically with power drawn from an overhead electric line. LRT provides a cleaner, more energy-efficient form of transportation than automobiles and is quieter than conventional rail systems.

The LRT Alignment would extend rail from the current Phase 1 terminus station at Venice/Robertson to a terminus station in Santa Monica at 4th Street and Colorado Avenue. The LRT Alternatives are as follows:

- LRT 1 (Expo ROW–Olympic Alternative) would utilize approximately 5 miles of the existing Expo ROW from the Expo Phase 1 terminus until reaching the intersection with Olympic Boulevard in Santa Monica. From that point, the alignment would follow Olympic Boulevard to the proposed terminus station.
- LRT 2 (Expo ROW–Colorado Alternative) would also utilize the existing Expo ROW from the Expo Phase 1 terminus until reaching the intersection with Olympic Boulevard in Santa Monica. From that point, the alignment would continue within the Expo ROW to west of 19th Street, then diverge from the EXPO ROW and enter onto Colorado Avenue east of 17th Street and follow the center of Colorado Avenue to the proposed terminus.
- LRT 3 (Venice/Sepulveda–Olympic Alternative) would divert from the Expo ROW at the Expo Phase 1 terminus and follow Venice Boulevard and Sepulveda Boulevard until reaching the intersection with the Expo ROW. The alignment would then continue westward along the Expo ROW and Olympic Boulevard identical to the LRT 1 Expo ROW–Olympic Alternative.
- LRT 4 (Venice/Sepulveda–Colorado Alternative) would divert from the Expo ROW at the Expo Phase 1 terminus and follow Venice Boulevard and Sepulveda Boulevard until reaching the intersection with the Expo ROW. The alignment would then continue westward along the Expo ROW and Colorado Avenue identical to the LRT 2 Expo ROW–Colorado Alternative.

Geographic Segments

The proposed project traverses several jurisdictions, including the cities of Los Angeles, Culver City, and Santa Monica, and spans distinct communities within each jurisdiction. In order to account for these differences, the proposed project is described and examined at two different scales, from broad to specific—Westside of Los Angeles County and geographic segments with special consideration of proposed station areas—to identify potential impacts.

For purposes of this discussion, the LRT Alternatives have been divided into geographic segments for ease of analysis (Figure 1-1 [Project Location]). For the area between the Phase 1 terminus and the Exposition/Sepulveda intersection, there are two alternative alignments: Segment 1 (Expo ROW) and Segment 1a (Venice/Sepulveda). Segment 2 (Sepulveda to Cloverfield) is common to all LRT Alternatives. For the area between the Cloverfield/Olympic intersection and a terminus in Santa Monica, there are also two alternative alignments: Segment 3 (Olympic) and Segment 3a (Colorado). Thus, the segments are as follows:

- Segment 1: Follows the Expo ROW from the Expo Phase 1 terminus station in Culver City to the Expo ROW/Sepulveda Boulevard intersection, approximately 2.8 miles in length
- Segment 1a: Follows westerly in the median of Venice Boulevard from the Expo Phase 1 terminus station in Culver City to the Venice Boulevard/Sepulveda Boulevard intersection, then follows northerly in the center of Sepulveda Boulevard to the Expo ROW/Sepulveda Boulevard intersection, approximately 3.7 miles in length
- Segment 2: Follows the Expo ROW from the Expo ROW/Sepulveda Boulevard intersection to the Expo ROW/Olympic Boulevard intersection, approximately 2.3 miles in length
- Segment 3: Follows the median of Olympic Boulevard from the Expo ROW/Olympic Boulevard intersection to the Phase 2 terminus option at 4th Street and Colorado Avenue in Santa Monica, approximately 1.5 miles in length
- Segment 3a: Follows the Expo ROW from the Expo ROW/Olympic Boulevard intersection to west of 19th Street in Santa Monica. The alignment then diverges onto Colorado Avenue east of 17th Street and continues along the center of Colorado Avenue terminating between 4th Street and 5th Street, approximately 1.5 miles in length.

In response to comments received on the DEIR and after further analysis and coordination with various stakeholders, five design options have been added in the FEIR for the LRT Alternatives:

- Sepulveda Grade Separation Design Option
- Expo/Westwood Station No Parking Design Option
- Maintenance Facility Buffer Design Option
- Colorado Parking Retention Design Option
- Colorado/4th Parallel Platform and South Side Parking Design Option

Stations

Table 1-1 (Station Locations) provides a description of each station within the various segments, including the approximate location, the type of proposed station (i.e., at grade or aerial), and the amount of parking to be provided.

Table 1-1 Station Locations

Name	Location	LRT: EXPO ROW Alignment	LRT: Venice/ Sepulveda Alignment	Parking
Segment 1: Expo ROW				
National/Palms	Expo ROW just west of the aerial structure over National Boulevard/Palms Boulevard	On Embankment	N/A	0
Expo/Westwood	Within Expo ROW, ~~E~~east of Westwood Boulevard ~~on Exposition Boulevard~~	At grade	N/A	170

Table 1-1 Station Locations

Name	Location	LRT: EXPO ROW Alignment	LRT: Venice/ Sepulveda Alignment	Parking
Segment 1a: Venice/Sepulveda				
Venice/Motor	Venice Boulevard, east of Motor Avenue	N/A	At grade	0
Venice/Sepulveda	On Venice Boulevard, east of Sepulveda Boulevard	N/A	Aerial	0
Sepulveda/National	South of National Boulevard above the center of Sepulveda Boulevard	N/A	Aerial	250
Segment 2: Sepulveda to Cloverfield				
Expo/Sepulveda	West of Sepulveda Boulevard and Exposition Boulevard	At grade (aerial design option)	At grade (aerial design option)	~~270~~260
Expo/Bundy	Bundy Drive and Exposition Boulevard	Aerial	Aerial	250
Olympic/26th Street	East of 26th Street on Olympic	At grade	At grade	0
Segment 3: Olympic				
Olympic/17th Street	East and west side of 17th Street within the median of Olympic Boulevard	At grade	At grade	0
Colorado/4th	~~4th Street, east of Colorado Avenue~~On the existing commercial block bounded by 4th Street, 5th Street, and Colorado Avenue	Aerial	Aerial	~~250~~0
Segment 3a: Colorado				
Colorado/17th Street	Center of Colorado Avenue west of 17th Street	At grade	At grade	70
Colorado/4th	~~Center of Colorado Avenue between 2nd Street and 4th Street or o~~On the existing commercial block bounded by 4th Street, 5th Street, and Colorado Avenue	At grade	At grade	~~225~~0

SOURCE: DMJM Harris, 2008, updated 2009.

Maintenance Facilities

A Maintenance Facility is proposed to be constructed as a part of the Expo Phase 2 project. The Maintenance Facility site would be located on a parcel or parcels within the City of Santa Monica immediately south of the Expo ROW, north of Exposition Boulevard, and east of Stewart Street. The site is currently occupied by a surface parking lot and light-industrial facility. The maintenance facility is to be designed and built to meet the maintenance needs of the LRT vehicles required to operate Phase 2 through the year 2030. It could operate 24 hours a day in

three shifts. The maintenance facility would consist of outdoor storage for ~~20 to 36~~approximately 43 to 45 LRT vehicles and associated storage track; trackway to connect to the main line and allow the movement of LRT vehicles from the main line track to and within the maintenance facility area; main yard shop building with office and vehicle repair areas; vehicle wash facility; traction power substation; and parking for 65 ~~to 70~~ employees. The main yard shop structure would be approximately ~~300~~ 350 feet long and ~~166~~ 189 feet wide, two stories in height, and with a total area of approximately 125,000 square feet. The structure would be built of concrete block or corrugated metal or a combination thereof.

Since the release of the DEIR and in response to comments, the Expo Authority has worked with the City of Santa Monica, Metro, and the community to identify alternative layouts for the Maintenance Facility. As a result of these collaborative efforts, a Maintenance Facility Buffer Design Option has been developed for evaluation in the FEIR. This design option would occupy only a portion of the Verizon site, with an extension of the facility into the existing Santa Monica College parking lot to the west. Utilization of the adjacent parking lot on the west side of the Verizon site would create an approximate 100- to 110-foot buffer between the Maintenance Facility and the residential area on the south side of Exposition Boulevard. The Maintenance Facility Buffer Design Option would include much of the same facilities as the original Maintenance Facility concept.

2. STUDY METHODS

2.1 Personnel and Survey Dates

Plant and wildlife field surveys were conducted by PBS&J biologists. The entire study area (detailed in Section 3.1.1 [Study Area]) was surveyed. The purposes of the biological field surveys were to delineate vegetative communities within the study area, identify the presence or potential for sensitive biological resources to occur within the study area, and identify plant and wildlife species observed within the study area.

This section considers the effects on biological resources resulting from construction and operation of Phase 2 of the Exposition Corridor Transit Project, which would provide improved transit service to the Westside of Los Angeles County. In general, the portion of western Los Angeles County in which the proposed project is located is highly urbanized, and because of this, biological resources within the study area are limited. The study area supports only urban landscaping and a relatively small area of nonnative, ruderal vegetation. Wildlife resources are similarly limited to those species adapted to surviving in highly urbanized environments.

The following terms are used within this section to address the biologic resources in relation to the project. “Study area” refers to the proposed project footprint itself including construction and laydown yards; the “region” is that area covered in the nine quadrangle database review; the “vicinity” is the area within 5 miles of the study area; the “immediate vicinity” is the area within 1-mile of the project.

2.1.1 Plants

Botanical field surveys were performed on March 7, 2007, by PBS&J biologists Christopher Bronny and Erik Hansen; on December 19, 2007, by PBS&J biologists Carlos Alvarado and Erik

Hansen; and on May 6, 2008, by PBS&J biologist May Ye Lau. The surveys began at 6:00 a.m. on March 7; at 8:00 a.m. on December 19; and at 10:00 a.m. on May 6. All surveys concluded at 4:00 p.m. and were conducted entirely on foot. The entire width of the Expo ROW (Segment 1 and Segment 2) was surveyed; the entire width (sidewalk to sidewalk) of the surface streets (Segments 1a, Segment 3, and Segment 3a) were surveyed to include surrounding street trees and landscaping; and the entire property where Stewart Street maintenance facilities would be developed was surveyed. The survey included an assessment of vegetation types and communities occurring within the study area, potential wetland features, and potential habitat for sensitive plant and wildlife species. Plant species were identified in the field, or collected for later identification. A list of plant species observed within the study area is contained in Appendix A (Plant and Wildlife Species Observed within the Study Area).

2.1.2 Wildlife

Wildlife field surveys were performed on March 7, 2007, by PBS&J biologists Christopher Bronny and Erik Hansen; on December 19, 2007, by PBS&J biologists Carlos Alvarado and Erik Hansen; and on May 6, 2008, by PBS&J biologist May Ye Lau. The surveys began at 6:00 a.m. on March 7; at 8:00 a.m. on December 19; and at 10:00 a.m. on May 6. All surveys concluded at 4:00 p.m. and were conducted entirely on foot. The entire width of the Expo ROW (Segment 1 and Segment 2) was surveyed; the entire width (sidewalk to sidewalk) of the surface streets (Segments 1a, Segment 3, and Segment 3a) were surveyed to include surrounding street trees and landscaping; and the entire property where maintenance facilities would be developed was surveyed. Surveys included active searches for reptiles that involved lifting, overturning, and carefully replacing rocks and debris. Birds were identified by standard visual and auditory recognition. The presence of nests or other evidence of breeding activity was noted. Surveys for mammals included searching for and identifying diagnostic signs, including scat, footprints, scratch-outs, dusting bowls, burrows, and trails. A list of wildlife species observed within the study area is contained in Appendix A. Bird names follow the American Ornithologist's Union *Check-list of North American Birds, 7th Edition* (as amended) (AOU 1983; Banks et al 2007).

2.2 Literature Survey

Information on occurrences or the potential of sensitive species being in or "near" (within the eight United States Geological Survey [USGS] 7.5-minute quadrangles listed below) the study area was obtained from searching databases and lists of the: California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB) (October 2007) for the USGS 7.5-minute Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and Van Nuys quadrangles; United States Fish and Wildlife Service's (USFWS) Endangered Species List for the USGS 7.5-minute quadrangle map for Beverly Hills; and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants for the USGS 7.5-minute quadrangle map for Beverly Hills.[1] Information on the status of sensitive plant and wildlife species potentially occurring within the study area was also obtained from the CDFG's *Special Vascular Plants, Bryophytes, and Lichens List* (October 2007), the CDFG's *List of State and Federally Listed Endangered and Threatened Animals of California* (October 2007), and the CDFG's *List of Special Animals* (October 2007). This search range encompasses a sufficient

[1] A 7.5-minute, 1:24,000-scale quadrangle is a standard topographical map provided by the USGS. The term 7.5-minute refers to the minutes of longitude and latitude covered by the map.

distance to account for regional habitat diversity and to overcome the limitations of the CNDDB. The CNDDB is based on reports of actual occurrences and does not constitute an exhaustive inventory of every resource.

Additional background information on biological resources was derived from *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986), *A Manual of California Vegetation* (Sawyer and Keeler-Wolf, 1995), *Jepson Manual of Higher Plants of California* (Hickman, ed. 1993), *Trees and Shrubs of California* (Stuart and Sawyer, ed. 2001), and *Peterson Field Guides: Western Birds* (Peterson, ed. 2001). Blooming periods were taken from the CNPS Inventory of Rare and Endangered Plants (California Native Plant Society 2007, October).

Based upon the results of the literature review and record searches, a list of sensitive plant and wildlife species, habitats, and vegetation communities with the potential to occur within the study area was developed for verification in the field (refer to Appendix B [Sensitive Plant and Wildlife Species Potentially Occurring within the Study Area]).

2.3 Limitations that May Influence Results

The biological field surveys performed in preparation of this NES were not conducted to determine the absence or presence of any sensitive species, but rather to assess the potential for sensitive species and resources to occur within the study area. As such, focused surveys were not conducted for any particular species, and surveys were not timed to include every species' blooming period, breeding period, or migration cycle that has the potential to occur within the study area. Focused surveys for sensitive biological resources can be performed at the appropriate time to include a species' blooming period, breeding period, or migration cycle should it be determined that habitat exists to support a sensitive biological resource and/or there is a likelihood of a sensitive species to be present.

2.4 Agency Coordination and Professional Contacts

The USFWS and CDFG were solicited for comments in the distribution of the Notice of Intent (NOI) (distributed February 12, 2007) and Notice of Preparation (NOP) (distributed February 14, 2007) for the proposed project. The USFWS did not respond during the comment period. The CDFG, in a letter dated March 26, 2007, responded to the NOP distributed for the proposed project, and the letter is included in Appendix C (Agency Coordination). The letter recommends information to be provided to CDFG staff so they can adequately review and comment on the proposed project. In addition, the USFWS and CDFG have received invitations to the scoping meetings associated with the proposed project. The USFWS and CDFG were both contacted on November 11, 2007, but neither has yet returned messages left requesting consultation. The California Coastal Commission was contacted on December 11, 2007, with a response providing consultation received on December 12, 2007. The City of Santa Monica was contacted on January 21, 2008, with a response providing consultation on the removal of trees within the City of Santa Monica received on January 24, 2008. Logs of the telephone calls to the USFWS, CDFG, and City of Santa Monica are available in Appendix C (Agency Coordination).

2.5 Regulatory Requirements

2.5.1 Federal

Endangered Species Act of 1973

The *Federal Endangered Species Act* (FESA) and implementing regulations, 16 *United States Code* (USC) Section 1531 et seq. and 50 *Code of Federal Regulations* (CFR) Section 17.1 et seq., include provisions for the protection and management of federally listed endangered or threatened plants and wildlife, and their designated critical habitats. Section 7 of the FESA requires a permit to take endangered or threatened species during lawful project activities. "Take" is defined in the Section 3.19 of the FESA as "…to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (50 CFR 17.3). The administering agency for the above authority is the USFWS for terrestrial, avian, and most aquatic species. This act protects federally listed endangered or threatened plant and wildlife species. These species are absent from the study area. This act protects the federally listed plant and wildlife species identified in Appendix B as potentially occurring within the study area.

Fish and Wildlife Coordination Act of 1934

Section 7 of *Fish and Wildlife Coordination Act*, 16 USC Section 742 et seq., 16 USC Section 1531 et seq., and 50 CFR Section 17, requires consultation if any project facilities could jeopardize the continued existence of an endangered species. Applicability depends on federal jurisdiction over some aspect of the project. These species have been determined to be absent from the study area and thus, no consultation is required. Applicability of Section 7 to the proposed project is discussed further in Section 5.2 (Federal Endangered Species Act Consultation Summary).

Migratory Bird Treaty Act of 1918

The *Migratory Bird Treaty Act* (MBTA) (16 USC Sections 703–711) includes provisions for protection of migratory birds, including the nonpermitted take of migratory birds, under the authority of the USFWS and CDFG. The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species. This act protects many of the bird species within the study area.

Clean Water Act of 1977, Section 404

This section of the *Clean Water Act* (CWA) (33 USC Section 1251 et seq. and 33 CFR Sections 320 and 323) gives the U.S. Army Corps of Engineers (USACE) authority to regulate discharges of dredge or fill material into waters of the U.S., including wetlands. Under Section 404 of the CWA, the USACE is charged with regulating the discharge of dredge and fill materials into jurisdictional waters of the United States (U.S.) The term "waters of the U.S.," or "jurisdictional waters," has a broad meaning that includes special aquatic sites, such as wetlands. Waters of the U.S., as defined by regulation and refined by case law, include (1) the territorial seas; (2) coastal and inland waters, lakes, rivers, and streams that are navigable waters of the U.S., including their adjacent wetlands; (3) tributaries to navigable waters of the U.S., including adjacent wetlands; (4) interstate waters and their tributaries, including adjacent wetlands; and (5) all other waters of the U.S. not identified above, such as some isolated

wetlands and lakes, intermittent and ephemeral streams, prairie potholes, and other waters that are not a part of a tributary system to interstate waters or navigable waters of the U.S., the degradation or destruction of which could affect interstate commerce. This section of the CWA protects water quality within the Sepulveda Channel (located within Segment 1a (Venice/Sepulveda) of the Expo Phase 2 study area) and is discussed further in Section 5.4 (Wetlands and Other Waters Consultation Summary).

Clean Water Act of 1977, Section 401

This section of the CWA requires a State-issued Water Quality Certification for all projects regulated under Section 404. In California, the Regional Water Quality Control Board (RWQCB) with jurisdiction over the study area issues Water Quality Certifications. The RWQCB asserts jurisdiction over "waters of the U.S." under Section 401 of the CWA, where such waters are also subject to USACE jurisdiction, pursuant to Section 404 of the CWA. The RWQCB can also assert jurisdiction over "waters of the state" pursuant to the *Porter-Cologne Water Quality Control Act*. If the USACE does not assert jurisdiction over the wetlands, it is expected that the RWQCB would assert jurisdiction under the *Porter-Cologne Act*. This section of the CWA protects water quality within the Sepulveda Channel (located within Segment 1a of the study area) and is discussed further in Section 5.4 (Wetlands and Other Waters Consultation Summary).

2.5.2 State

California Endangered Species Act of 1984

The *California Endangered Species Act* (CESA) and implementing regulations in the *Fish and Game Code*, Section 2050 through Section 2089, include provisions for the protection and management of plant and animals species listed as endangered or threatened, or designated as candidates for such listing. Incidental take of an endangered species is permitted by CDFG only under certain conditions, and provided that the proper federal permits have been obtained and notifications made to the CDFG as described in *Fish and Game Code* Section 2080.1. Plants of the state declared to be endangered, threatened, or rare are listed at 14 *California Code of Regulations* (CCR) Section 670.2. Wildlife of California declared to be endangered or threatened are listed at 14 CCR Section 670.5.14. CCR Section 15000 et seq. describes the types and extent of information required to evaluate the effects of a project on biological resources of a project site.

Sections 2081(b) and (c) of the CESA allows the CDFG to issue an incidental take permit for a state-listed threatened or endangered species only if specific criteria are met. These criteria can be found in 14 CCR Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of "fully protected" species and "specified birds." If a project is planned in an area where a fully protected species or specified species of bird occurs, an applicant must design the project to avoid all take; the CDFG cannot provide take authorization under CESA. This act protects the state-listed plant and wildlife species identified in Appendix B. These species were found to be absent from the study area and thus, these provisions do not apply.

Fish and Game Code of California

Different sections of the *Fish and Game Code* are described throughout this section of the NES. The *Fish and Game Code* provides specific protection and listing for several types of biological resources.

Section 1600 of the *Fish and Game Code* requires a Streambed Alteration Agreement (SAA) for any activity that may alter the bed and/or bank of a stream, river, or channel. Typical activities that require a SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. This section of the *Fish and Game Code* protects water quality within the Sepulveda Channel, which is within Segment 1a (Venice/Sepulveda) of the study area. As the habitat value of the Sepulveda Channel is very poor, it would not be subject to this regulation. This issue is discussed further in Section 5.4 (Wetlands and Other Waters Consultation Summary).

Section 3503 of the *Fish and Game Code* makes it unlawful to take, possess, or destroy any birds listed within the code, or to take, possess, or destroy their nest or eggs. Disturbance that causes nest abandonment and/or loss of reproductive effort is also considered a take by CDFG. This section of the *Fish and Game Code* protects many of the bird species within the study area.

Porter-Cologne Water Quality Control Act of 1970

The *Porter-Cologne Act* grants the State Water Resource Control Board (SWRCB) and its regional offices power to protect water quality, and is the primary vehicle for implementation of the State's responsibilities under Section 401 of the CWA. The *Porter-Cologne Act* grants the SWRCB authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. This act protects water quality within the Sepulveda Channel, which is within Segment 1a (Venice/Sepulveda) of the study area and is discussed further in Section 5.4 (Wetlands and Other Waters Consultation Summary).

Native Plant Protection Act of 1977

The *Native Plant Protection Act of 1977* and implementing regulations, Section 1900 et seq. of the *Fish and Game Code*, designate sensitive and endangered plants, and provide specific protection measures for identified populations. It is administered by the CDFG and protects the sensitive plant species. Since these species were determined to be absent from the study area, these provisions do not apply.

Wetlands Conservation Policy of 1993

This policy provides for the protection, preservation, restoration, enhancement, and expansion of wetland habitats in the state. The primary goal of this policy is to ensure no overall net loss of wetlands occur within the state. Secondary goals include a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in the state in a manner that fosters creativity, stewardship, and respect for private property. The administering agencies for this authority are the CDFG, the California Environmental Protection Agency (Cal EPA), and the RWQCB. Any wetlands associated with the Sepulveda Channel (including channelized

waterways) are protected by this policy and is discussed further in Section 5.4 (Wetlands and Other Waters Consultation Summary).

2.5.3 Regional

County of Los Angeles

County Code

Oak Tree Permits: 22.56.2050

The oak tree permit was established to recognize oak trees as a significant resource within the County of Los Angeles. It is the intent of the oak tree permit to maintain and enhance their general health, safety, and welfare by assisting in counteracting air pollution and in minimizing soil erosion and other related environmental damage. The oak tree permit is also intended to preserve and enhance property values by conserving and adding to the distinctive and unique aesthetic character of many areas of Los Angeles County in which oak trees are indigenous. The stated objective of the oak tree permit is to preserve and maintain healthy oak trees in the development process. Should the proposed project necessitate the removal of any oak tree, a permit from the County of Los Angeles would be required prior to such action.

2.5.4 Local

City of Los Angeles

General Plan—Conservation Element

Section 6: Endangered Species

- **Objective:** Protect and promote the restoration, to the greatest extent practical, of sensitive plant and animal species and their habitats.
  - **Policy 1:** Continue to require evaluation, avoidance, and minimization of potential significant impacts, as well as mitigation of unavoidable significant impacts on sensitive animal and plant species and their habitats and habitat corridors relative to land development activities.

Section 12: Habitats

- **Objective:** Preserve, protect, restore, and enhance natural plant and wildlife diversity, habitats, corridors, and linkages so as to enable the healthy propagation and survival of native species, especially those species that are endangered, sensitive, threatened or species of special concern.
  - **Policy 1:** Continue to identify significant habitat areas, corridors, and buffers and to take measures to protect, enhance, and/or restore them.
  - **Policy 3:** Continue to work cooperatively with other agencies and entities in protecting local habitats and endangered, threatened, sensitive, and rare species.

Municipal Code

Preservation of Protected Trees: Chapter 4, Article 6

Article 6 of the *City of Los Angeles Municipal Code* states that no protected tree may be relocated or removed (except as provided in Article 7 of Chapter 1). The term "protected tree" means any of the following Southern California native tree species which measures 4 inches or more in cumulative diameter and 4.5 feet above ground level at the base of the tree:

(a) Oak tree including Valley Oak (*Quercus lobata*) and Coast Live Oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to California but excluding the Scrub Oak (*Quercus dumosa*)

(b) Southern California Black Walnut (*Juglans californica* var. *californica*)

(c) Western Sycamore (*Platanus racemosa*)

(d) California Bay (*Umbellularia californica*)

This definition does not include any tree grown or held for sale by a licensed nursery, or trees planted or grown as a part of a tree planting program. Should the proposed project necessitate the removal of any protected tree within the City of Los Angeles, a permit from the City of Los Angeles would be required prior to such action.

City of Culver City

Municipal Code

Street Trees: 9.10.035—Permit Requirements

Section 9.10.035 of the *City of Culver City Municipal Code* states that no person shall: plant, remove, destroy, cut, prune, or deface, or in any manner injure any tree or shrub in any street or parkway in the City of Culver City, or shall plant any flowers, grass, vines, vegetables, grains, or other vegetation without first obtaining a permit to do so from the City. Should the proposed project necessitate the removal of a tree or shrub, or introduction of any vegetation, within the City of Culver City in a street or parkway, a permit from City of Culver City would be required prior to such action.

City of Santa Monica

General Plan—Conservation Element

- Policy 23. The City shall maintain its policy of replacing trees whenever it becomes necessary and of not permitting the removal of any city trees still living and in a healthy condition.

Municipal Code

Street Trees: 7.40.110—Permit Requirements:

Section 7.40.110 of the *City of Santa Monica Municipal Code* states that no person, firm, or corporation shall remove, cut, trim, prune, plant, injure, or interfere with any tree, shrub, or plant upon any street or public place of the City without a permit from the Director of Recreation and Parks or the Director of General Services. The Director of Recreation and Parks may require the

posting of a cash deposit or bond in an amount sufficient to secure the completion of the work, and to indemnify the City against any damages to public property arising from the exercise of rights granted under the permit and to include the cost of inspection. Should the proposed project necessitate the removal of any tree, shrub, or plant in a street or public place within the City of Santa Monica, a permit from the City of Santa Monica would be required prior to such action.

Community Forest Management Plan

Adopted by the City on November 9, 1999, the *City of Santa Monica Community Forest Management Plan* supplements the City's General Plan and *Municipal Code* by providing specific policies related to the management of the trees within the City. In regards to tree removal, the plan provides specific policies to ensure that every attempt possible is made to conserve affected trees through transplantation, and that notices are sent to residents, property owners, and merchants within a one block radius of the tree(s) to be removed.

Taking into account the City of Santa Monica's General Plan, *Municipal Code*, and *Community Forest Management Plan*, the following steps need to be taken prior to the removal of any tree within the City of Santa Monica:

- Determine the feasibility of all other alternatives to the project that would not require the removal of tree(s) (consultation with City of Santa Monica Urban Forester Walter Warriner, January 24, 2008)
- Work with the City's Community Forester to determine the "health" (health as determined by the Community Forester through the evaluation of the tree's root system, trunk, branching system, canopy, and foliage) of the tree(s) to be removed (Policy 2.3 [City of Santa Monica Community Forest Management Plan])
- Work with the City's Community Forester and/or Director of Community and Cultural Services to determine possible transplantation locations, and/or mitigation ratio and site (Policy 2.6 [City of Santa Monica Community Forest Management Plan])
- Receive permit for removal of tree(s) from the City's Community Forester and/or Director of Community and Cultural Services and City Manager (*City of Santa Monica Municipal Code* 7.40.110(a))
- Post cash deposit or bond in amount sufficient to secure the completion of work (removal and transplantation and/or mitigation of tree(s)) and indemnify City (*City of Santa Monica Municipal Code* 7.40.110 (b))
- Post tree removal notices in the Public Electronic Network, and have the notices sent to residents, property owners, and merchants within a one block radius of the tree(s) to be displaced no later than fourteen days prior to the removal of the affected tree(s) (Policy 2.3 [City of Santa Monica Community Forest Management Plan])

3. AFFECTED ENVIRONMENT

3.1 Description of the Existing Physical Conditions and Biological Resources

3.1.1 Study Area

The study area has been divided into five segments and a proposed maintenance facility. All five segments and the proposed maintenance facility were surveyed during the biological field surveys conducted in preparation of this NES. The five segments make up the four LRT Alternatives analyzed within this NES, which are described in Section 1.2.3 (Light-Rail Transit [LRT] Alternatives). In addition to the LRT Alternatives, two other alternatives are being considered, which are described in Section 1.2.1 (No-Build Alternative) and Section 1.2.2 (Transportation Systems Management [TSM] Alternative).

3.1.2 Physical Conditions

The topography throughout the entire study area is nearly level, increasing from approximately 60 feet (ft.) above mean sea level (msl) at Main Street (the western-most point of the study area), to approximately 180 ft. above msl at the Expo Phase 1 terminus station, just east of the intersection of Venice and Robertson Boulevards (the eastern-most point of the study area). The study area includes a railroad ROW, surface streets, and urban development. Described by segment, the physical conditions of the study area include:

- Segment 1 (Expo ROW): the eastern portion of the Expo ROW, is almost completely undeveloped/unoccupied, except for a few temporary uses just west of the eastern-most terminus (the Expo Phase 1 terminus station) that include:
  - Car storage
  - Construction storage
  - Off-site parking
  - Commercial uses
- Segment 1a (Venice/Sepulveda): Venice Boulevard is a six-lane surface street with a variable width vegetated median separating the east bound and westbound lanes. Sepulveda Boulevard is a four-lane surface street (north/south). The Sepulveda Channel (a tributary of Ballona Creek) is a flood control channel that, while subterranean for much of its length, crosses under Sepulveda Boulevard via an exposed, concrete lined channel, just north of Rose Avenue. The Sepulveda Channel travels in a southwesterly direction, meeting up with Ballona Creek, which eventually discharges into the Santa Monica Bay.
- Segment 2 (Sepulveda to Cloverfield): the western portion of the Expo ROW, which is almost completely occupied by the temporary uses described above, under Segment 1.
- Segment 3 (Olympic): Olympic Boulevard, which is a four-lane surface street with a variable width vegetated median separating the eastbound and westbound lanes.

- Segment 3a (Colorado): the western portion of the Expo ROW from 22nd Street to west of 19th Street, which is almost completely occupied by the commercial and light-industrial uses described above, under Segment 1. Colorado Avenue is a four-lane surface street (east/west).

One location, at the intersection of Stewart Street and Exposition Boulevard in the City of Santa Monica, has been selected as a possible site for a maintenance facility. The proposed location would be used for midday and overnight storage of 25 to 30 LRVs, as well as for cleaning, inspection, and light repairs. The site is completely developed with surface parking and office uses. The site is adjacent to Segment 2.

Land uses surrounding the study area are highly urban in nature with light-industrial, office, commercial, and residential uses surrounding Venice and Sepulveda Boulevards (Segment 1a); office, commercial, light-industrial, and recreational uses surrounding Olympic Boulevard and Colorado Avenue (Segment 3 and Segment 3a); and industrial, office, commercial, residential, and recreational uses surrounding the Expo ROW (Segment 1 and Segment 2, and the proposed maintenance facility), with the eastern portion surrounded by residential uses (Cheviot Hills and Rancho Park neighborhoods). For a comprehensive assessment of land uses in and surrounding the study area, refer to the *Land Use Technical Background Report*.

3.1.3 Biological Resources

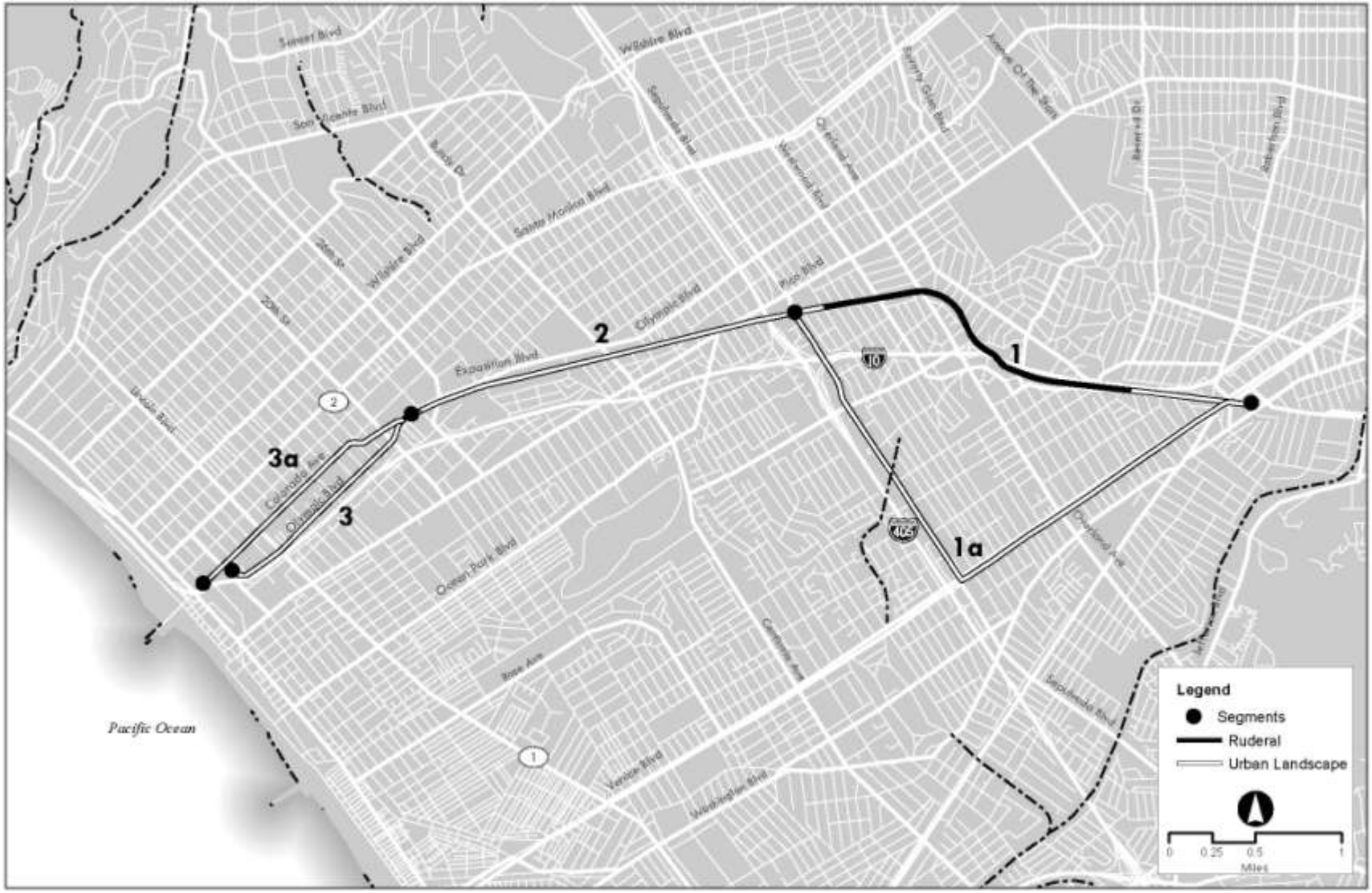
Vegetation Communities

A total of 148 vascular plant species were observed within the study area (refer to Appendix A). The study area only supports two vegetation communities: urban landscape and ruderal (refer to Figure 3-1 [Vegetation Communities]). Of these communities, urban landscape is the dominant vegetation community. The ruderal (i.e., disturbed) vegetation community only occurs in Segment 1, within the Expo ROW. Detailed descriptions of the vegetation communities and the associated plant species are provided below.

The area of potential impact associated with the proposed project is limited to the Expo ROW of Segment 1 and Segment 2, the surface streets and sidewalks of Segments 1a, Segment 3, Segment 3a, and the proposed maintenance facility, due to the urban nature of the proposed project and adjacent land uses. Total acreage of the vegetation communities affected by the proposed project was determined by taking the centerline of the proposed alignments and adding a 75-ft. buffer on each side (for a total of 150 ft.) to account for construction and operational impacts, the total width (sidewalk to sidewalk) of the surface streets, and the entire property where the proposed maintenance facility would be developed.

Urban Landscape

- Segment 1: 15.8 acres
- Segment 1a: 69.3 acres
- Segment 2: 39.3 acres
- Segment 3: 27.4 acres
- Segment 3a: 28.2 acres



Source: PBS&J, ESRI

Figure 3-1 Vegetation Communities

- Maintenance Facility: 9.17 acres (Total size of the maintenance facility includes the existing Santa Monica College Parking lot located directly to the west of the Verizon site)

The majority of the study area lies within an urbanized environment (refer to Photos 1 and 2). Development and urbanization has completely eliminated pre-settlement, native vegetation within the study area. Vegetation within the urban landscaped portions of the study area is composed of ornamental trees, shrubs, groundcovers, herbaceous cultivars, and sod lawns. All of these are irrigated and subject to routine maintenance (i.e., mechanical, manual, and chemical controls, including mowing, spraying, and fertilizing). These landscape plantings occur along surface streets, sidewalks, medians, and commercial businesses. Common horticultural tree species observed within the study area included (but are not necessarily limited to) eucalyptus (*Eucalyptus* sp.), she-oak (*Casaurina* sp.), jacaranda (*Jacaranda* sp.), pine (*Pinus* sp.), coral tree (*Erythrina crista-galli*), pistachio (*Pistacia* sp.), Canary Island date palm (*Phoenix canariensis*), and Mexican fan palm (*Washingtonia robusta*). Shrub species observed within the study area included oleander (*Nerium oleander*), Chinese holy grape (*Mahonia lomarifolia*), and Japanese cheesewood (*Pittosporcum tobira*). Groundcover observed included English ivy (*Hedera helix*), rosemary (*Rosmarinus officinalis*), and periwinkle (*Vinca major*). Herbaceous cultivars included gazania (*Gazania linearis*), purple top fountaingrass (*Pennisetum setaceum*), and other commercially grown horticultural varieties of groundcover. Maintained sod lawns included Bermuda grass (*Cynodon dactylon*) and other sod-forming varieties of grasses.

Photo 1—Segment 1a: On Venice Boulevard at Watseka Avenue, facing west.

Photo 2—Segment 3: On Olympic Boulevard and 17th Street, facing west.

Ruderal

- Segment 1: 36.3 acres
- Segment 1a: 0 acre
- Segment 2: 0 acre
- Segment 3: 0 acre
- Segment 3a: 0 acre
- Maintenance Facility: 0 acres

Ruderal vegetation within the study area only occurs in Segment 1, within the Expo ROW (refer to Photo 3). Vegetation within this community type consists primarily of introduced, short-lived annual grasses and herbaceous broadleaf weed species that persist in habitats that undergo nearly continuous disturbance regimes (e.g., mowing, disking, spraying). Ruderal communities have largely replaced the original native plant communities within Segment 1. Specimen plantings of native and nonnative species have been installed along this portion of the Expo ROW. Planted and spontaneously established native and nonnative species observed included (but are not necessarily limited to) jacaranda, cootamundra wattle (*Acacia baileyana*), blackwood acacia (*Acacia melanoxylon*), Bermuda grass, black mustard (*Brassica nigra*), rip-gut brome (*Bromus diandrus*), horseweed (*Conyza canadensis*), pampas grass (*Cortaderia jubata*), annual fireweed (*Epilobium brachyantherum*), filaree (*Erodium botrys* and *E. cicutarium*), eucalyptus, sweet fennel (*Foeniculum vulgare*), toyon (*Heteromeles arbutifolia*), telegraph weed (*Heterotheca grandiflora*), sweet gum (*Liquidambar* sp.), cheeseweed (*Malva parviflora*), Mexican fan palm, deer grass (*Muhlenbergia rigens*), purple needlegrass (*Nasella pulchra*), Bermuda buttercup (*Oxalis pes-caprae*), purple top fountaingrass (*Pennisetum setaceum*), bristly ox-tongue (*Picris echioides*), smilograss (*Piptatherum miliaceum*), coast live oak, castor bean (*Ricinus communis*), Peruvian peppertree (*Schinus molle*), Brazilian peppertree (*Schinus*

terebinthifolius), prickly sow-thistle (*Sonchus oleraceus*), and various succulents (e.g., *Agave attenuate*, *Opuntia* sp.).

Photo 3—Segment 1: Expo ROW at Westwood Boulevard, facing east.

Wildlife

A total of 24 wildlife species were recorded within the study area during the biological field surveys through direct observation, detection of vocalizations, or observation of sign. These species included nineteen birds, two invertebrates, two mammals, and one reptile (refer to Appendix A).

Birds

A total of nineteen bird species were observed within the study area during the biological field surveys, and were the most frequently observed wildlife. Bird species observed throughout the study area included (but are not necessarily limited to) rock pigeon (*Columbia livia*), western scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), and mourning dove (*Zenaida macroura*). An Anna's hummingbird (*Calypte anna*) was observed within Segment 1. No raptors (i.e., birds of prey) were observed within the study area during the biological field surveys. The existing habitat within Segment 1 could, however, provide marginal habitat for raptors, such as the red-tailed hawk (*Buteo jamaicensis*) and Cooper's hawk (*Accipiter cooperii*), although no occurrences of sensitive raptor species have been recorded within the study area according to the CNDDB.

Invertebrates

The cabbage white butterfly (*Pieris rapae*) and monarch butterfly (*Danaus plexippus*) were observed within Segment 1 during the biological field surveys. The monarch butterfly was observed around a eucalyptus windrow, located along the southern boundary of Segment 1.

Mammals

The western gray squirrel (*Sciurus griseus*) and feral cat (*Felis sylvestris*) were the only mammal species observed within the study area during the biological field surveys, and were observed within Segment 1. It is likely that other common mammal species occur within the study area, including the black rat (*Rattus rattus*), raccoon (*Procyon lotor*), and other wildlife species that have adapted to urban environments.

Reptiles

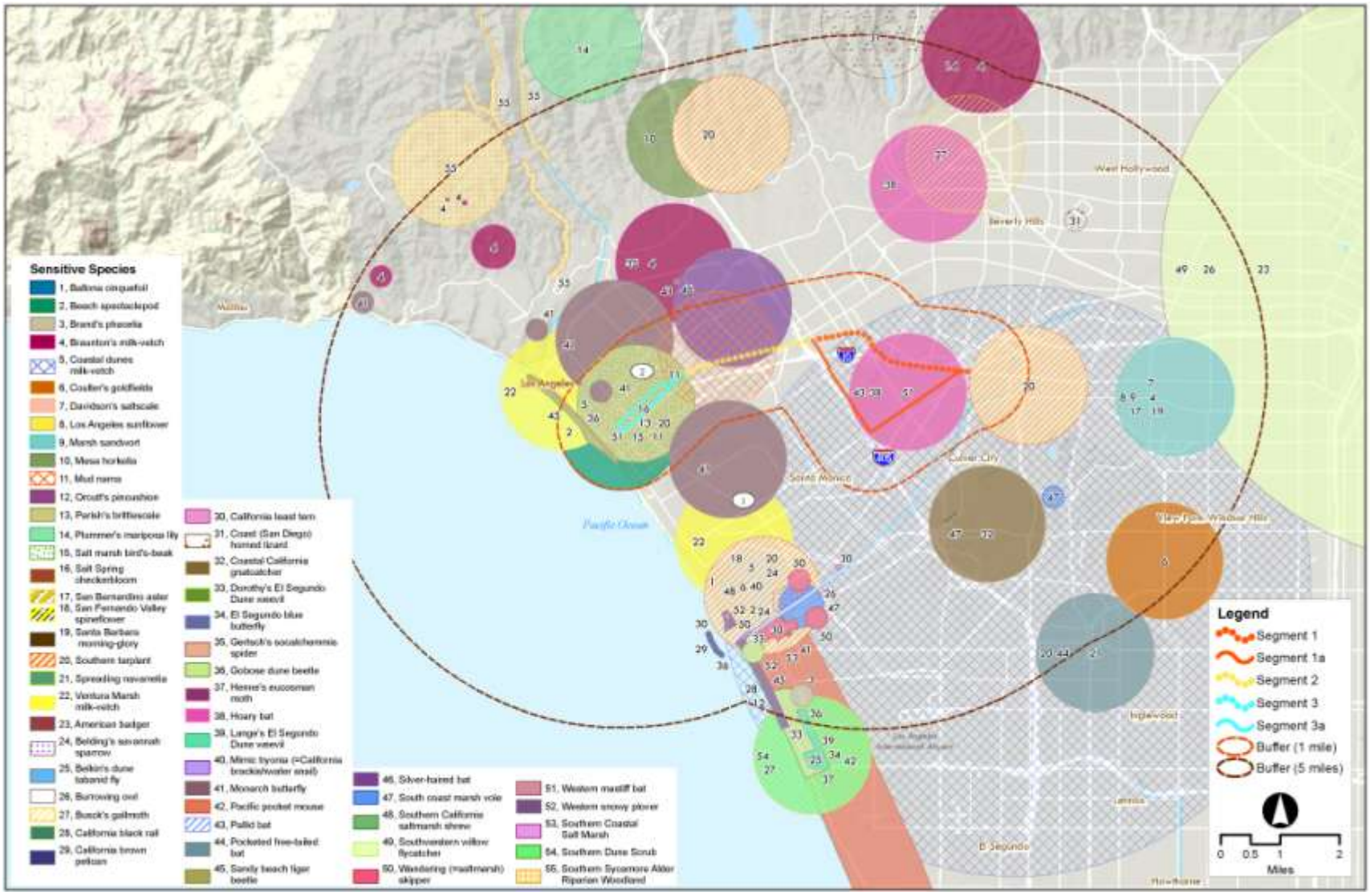
The western fence lizard (*Sceloporus occidentalis*) was the only reptile species observed within the study area during the biological field surveys, and was observed throughout the study area. Based on the urban nature of the study area, and its isolation/fragmentation from suitable (i.e., friable soils) reptilian habitat, it is unlikely that reptilian diversity within the study area is high.

3.2 Sensitive Biological Resources

The following addresses sensitive biological resources observed, reported, or having the potential to occur within the study area (refer to Figure 3-2 [Sensitive Species Occurrences] and Appendix B). These resources include plant and wildlife species that have been afforded special status and/or recognition by federal and state resource agencies, as well as private conservation organizations and special interest groups such as the CNPS (List 1A, 1B, and 2 plants). In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or perceived population decline or limited geographical extent and/or distribution. Most frequently, these effects result from habitat loss. In addition, sensitive biological resources include vegetation communities that are unique, of relatively limited distribution in the region, or of particularly high wildlife value. These resources are considered sensitive by federal, state, or local conservation programs. Sources used to determine the special status of biological resources are listed in Section 2.2 (Literature Survey).

The potential for sensitive species to occur within the study area was based on the following criteria:

- *Absent:* Species, habitat, or community was not observed during biological field surveys conducted at an appropriate time for identification of the species; or species is restricted to habitats that do not occur within the study area.
- *Low:* No records exist of the species occurring within the study area or its “vicinity” (within 5 miles), or on-site habitats needed to support the species are of poor quality.
- *Moderate:* Both a historical record exists of the species within the vicinity of the study area and the habitat requirements associated with the species occur within the study area. The validity of a historical occurrence is weighted by the condition of on-site habitat at the time of occurrence versus existing habitat conditions.
- *High:* Both a valid historical record exists of the species within the study area or its “immediate vicinity” (within 1 mile) and the habitat requirements associated with the species occur within the study area and are of high quality.
- *Observed:* Species, habitat, or community was observed within the study area at the time of the biological field survey.



Source: PBS&J, ESRI, CDFG

Figure 3-2 Sensitive Species Occurrences

3.2.1 Federally or State-Listed Plant and Wildlife Species

Based on the literature review, 25 federally and/or state-listed threatened, endangered, and/or candidate species were reported by the CNDDB as occurring within the USGS 7.5-minute quadrangle maps[2] for Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and Van Nuys and the USFWS's Endangered Species List as potentially occurring within the USGS 7.5-minute quadrangle map for Beverly Hills (refer to Appendix B). These are discussed below. No federally or state-listed threatened, endangered, or candidate plant or wildlife species were observed within the study area during the biological field surveys. Taking into account the on-site habitat of the study area, and the closest known historical occurrence, elevation, and habitat requirements/restrictions of these species, all are assumed to be absent from the study area.

Plants

Marsh Sandwort (*Arenaria paludicola*). The marsh sandwort is listed as endangered by the USFWS and threatened by the CDFG. Marsh sandwort is a perennial herb in the pink (*Caryophyllaceae*) family. It has rooting, trailing stems, and small white flowers which bloom from May to August. The marsh sandwort occurs in swamps, freshwater marshes, and other wet areas, between approximately 30 to 510 ft. above msl. Though the marsh sandwort has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the marsh sandwort. The marsh sandwort is ***absent*** from the study area.

Braunton's Milk-Vetch (*Astragalus brauntonii*). The Braunton's milk-vetch is listed as endangered by the USFWS. The Braunton's milk-vetch occurs in closed-cone coniferous forests, chaparral, coastal scrub, and valley and foothill grassland, between approximately 12 and 1,920 ft. above msl. Though the Braunton's milk-vetch has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the Braunton's milk-vetch. The Braunton's milk-vetch is ***absent*** from the study area.

Ventura Marsh Milk-Vetch (*Astragalus pycnostachyus* var. *lanosissimus*). The Ventura marsh milk-vetch is listed as endangered by the USFWS and the CDFG. The Ventura marsh milk-vetch occurs in coastal salt marsh, within reach of high tide or protected by barrier beaches (more rarely near seeps on sandy bluffs), between approximately 3 to 105 ft. above msl. Though the Ventura marsh milk-vetch has been observed within a 1-mile radius of the study area, the study area does not provide suitable habitat for the Ventura marsh milk-vetch. The Ventura marsh milk-vetch is ***absent*** from the study area.

Coastal Dunes Milk-Vetch (*Astragalus tener* var. *titi*). The coastal dunes milk-vetch is listed as endangered by the USFWS and the CDFG. The coastal dunes milk-vetch occurs in coastal bluff scrub and coastal dunes, in moist, sandy depressions of bluffs or dunes along and near the Pacific Ocean, between approximately 3 and 150 ft. above msl. Though the coastal dunes milk-vetch has been observed within a 1-mile radius of the study area, the study area does not provide suitable habitat for the coastal dunes milk-vetch. The coastal dunes milk-vetch is ***absent*** from the study area.

[2] A 7.5-minute, 1:24,000-scale quadrangle is a standard topographical map provided by the USGS. The term 7.5-minute refers to the minutes of longitude and latitude covered by the map.

Nevin's Barberry (*Berberis nevinii*). The Nevin's barberry is listed as endangered by the USFWS and the CDFG. The Nevin's barberry occurs in sandy or gravelly chaparral, cismontane woodland, coastal scrub, and riparian scrub. The Nevin's barberry native range currently extends from the foothills of the San Gabriel Mountains of Los Angeles County to near the foothills of the Peninsular Ranges of southwestern Riverside County, between approximately 870 and 4,725 ft. above msl. The study area does not provide suitable habitat for the Nevin's barberry and is outside its elevation range. In addition, the Nevin's barberry has not been observed within a 5-mile radius of the study area. The Nevin's barberry is ***absent*** from the study area.

San Fernando Valley Spineflower (*Chorizanthe parryi* var. *fernandin*). The San Fernando Valley spineflower is listed as endangered by the CDFG and is a candidate species with the USFWS. The San Fernando Valley spineflower is a member of the buckwheat family and grows in sandy or gravelly soils along dry washes. It is threatened by loss of habitat and competition with exotic invasive plants. It formerly occurred in San Bernardino, Riverside, Orange, Ventura, and Los Angeles counties, but is now known to occur only in a few locations. Though the San Fernando Valley spineflower has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the San Fernando Valley spineflower. The San Fernando Valley spineflower is ***absent*** from the study area.

Salt Marsh Bird's Beak (*Cordylanthus maritimus* ssp. *maritimus*). The salt marsh bird's beak is listed as endangered by the USFWS and the CDFG. The salt marsh bird's beak occurs in coastal dunes, coastal salt marshes, and swamps along coastal California south to Baja, between approximately 0 to 120 ft. above msl. Though the salt marsh bird's beak has been observed within a 1-mile radius of the study area, the study area does not provide suitable habitat for the salt marsh bird's beak. The salt marsh bird's beak is ***absent*** from the study area.

Beach Spectaclepod (*Dithyrea maritime*). The beach spectaclepod is listed as threatened by the CDFG. The beach spectaclepod occurs in coastal dunes and coastal scrub, between approximately 9 and 150 ft. above msl. Though the beach spectaclepod has been observed within a 1-mile radius of the study area, the study area does not provide suitable habitat for the beach spectaclepod. The beach spectaclepod is ***absent*** from the study area.

Slender-Horned Spineflower (*Dodecahema leptoceras*). The slender-horned spineflower is listed as endangered by the USFWS and the CDFG. The slender-horned spineflower occurs in alluvial fans, floodplains, stream terraces, washes, and associated benches. The slender-horned spineflower grows in riverbed alluvium high in silt and low in nutrients and organic matter, in silt-filled, shallow depressions on relatively flat surfaces surrounded by scattered, river-rounded, cobble-sized rocks, between approximately 600 and 2,280 ft. above msl. The study area does not provide suitable habitat for the slender-horned spineflower and is outside its elevation range. In addition, the slender-horned spineflower has not been observed within a 5-mile radius of the study area. The slender-horned spineflower is ***absent*** from the study area.

Santa Monica Mountains Dudleya (*Dudleya cymosa* ssp. *ovatifolia*). The Santa Monica Mountains dudleya is listed as threatened by the USFWS. The Santa Monica Mountains dudleya occurs in pebble (pavement) plain, upper montane coniferous forest, and pinyon and juniper woodland (usually in outcrops of granite or quartzite), between approximately 3,810 to 7,800 ft. above msl. The study area does not provide suitable habitat for the Santa Monica Mountains dudleya and is outside its elevation range. In addition, the Santa Monica Mountains

dudleya has not been observed within a 5-mile radius of the study area. The Santa Monica Mountains dudleya is ***absent*** from the study area.

Spreading Navarretia (*Navarretia fossalis*). The spreading navarretia is listed as threatened by the USFWS. The spreading navarretia occurs in vernal pools, chenopod scrub, marshes and swamps, and playas, between approximately 90 and 3,900 ft. above msl. Though the spreading navarretia has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the spreading navarretia. The spreading navarretia is ***absent*** from the study area.

California Orcutt grass (*Orcuttia californica*). The California Orcutt grass is listed as endangered by both the USFWS and the CDFG. The California Orcutt grass is a member of the grass (*Poaceae*) family that is a bright green, sticky, aromatic annual with flowers borne in dense spikes. The California Orcutt grass was once commonly found in the volcanic terrace and valley vernal pool systems of southern California in Los Angeles, Riverside, and San Diego counties. The California Orcutt grass was last collected near Lakewood, sometime prior to 1977, and is listed as extirpated by the CNDDB. The study area does not provide suitable habitat for the California Orcutt grass. In addition, the California Orcutt grass has not been observed within a 5-mile radius of the study area. The California Orcutt grass is ***absent*** from the study area.

Brand's Phacelia (*Phacelia stellaris*). The Brand's phacelia is a candidate species with the USFWS. The Brand's phacelia occurs in open sandy places, in coastal dune and coastal sage scrub, between approximately 0 and 1,200 ft. above msl. Though the Brand's phacelia has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the Brand's phacelia. The Brand's phacelia is ***absent*** from the study area.

Wildlife

Amphibians

Arroyo Toad (*Bufo californicus*). The Arroyo toad is listed as endangered by the USFWS. The arroyo toad is primarily nocturnal and prefers sandy, stable terraces along stream banks, with scattered shrubs and trees, such as mulefat and willow. When breeding, they prefer open pools with gravel or sandy bottoms found near large streams. Exposed pools that have little marginal woody vegetation and are shallow with sand or gravel substrate and a low current velocity are strongly favored. The study area does not provide suitable habitat for the Arroyo toad. In addition, the Arroyo toad has not been observed within a 5-mile radius of the study area. The arroyo toad is ***absent*** from the study area.

Birds

Western Snowy Plover (*Charadrius alexandrinus nivosus*). The western snowy plover is listed as threatened by the USFWS. The Pacific coast population of the western snowy plover breeds primarily on coastal beaches from southern Washington to southern Baja California, Mexico. The nesting season extends from early March through late September. The breeding season generally begins earlier in more southerly latitudes, and may be two to four weeks earlier in southern California than in Oregon and Washington. The western snowy plover nests on sandy beaches and dunes by creating a shallow depression as a nest, using driftwood, rocks, or bushes as cover; nests may also be entirely out in the open. Nests typically occur in flat, open areas with sandy or saline substrates. Though the western snowy plover has been

observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the western snowy plover. The western snowy plover is ***absent*** from the study area.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*). The southwestern willow flycatcher is listed as endangered by the USFWS and CDFG. The southwestern willow flycatcher is a late spring and summer breeding resident and migrates south for fall and winter. The southwestern willow flycatcher inhabits riparian woodlands and thickets, associated with the presence of surface water and/or very moist soil conditions and understory vegetation. Though the southwestern willow flycatcher has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the southwestern willow flycatcher. The southwestern willow flycatcher is ***absent*** from the study area.

California Black Rail (*Laterallus jamaicensis coturniculus*). The California black rail is listed as threatened by the CDFG. The historical distribution of the California black rail ranged from the San Francisco Bay area and the delta of the Sacramento and San Joaquin Rivers south, along the coast to northern Baja California. California black rails are still present within the remaining tidal marshlands of northern and coastal southern California. Significant loss of saltwater and freshwater wetland habitat in recent decades has significantly reduced the populations of California black rail. California black rails prefer to live in tidal salt marshes with a heavy canopy of pickleweed and an open structure below the canopy for nesting. The breeding season begins in February, normally with a single brood with an average clutch size of six eggs. California black rails have been reported to abandon their nests if disturbed before completing their clutch. Though the California black rail has been observed within a 5-mile radius of the study area, all recorded occurrences are from before 1970. In addition, the study area does not provide suitable habitat for the California black rail. The California black rail is ***absent*** from the study area.

Belding's Savannah Sparrow (*Passerculus sandwichensis* ssp. *beldingi*). The Belding's savannah sparrow is listed as endangered by the CDFG. The Belding's savannah sparrow is a small, brown, resident songbird. The Belding's savannah sparrow occurs in coastal areas of southern California and Baja California, Mexico, where it is a year-round resident of coastal salt marshes and associated mudflats and salt flats. Dense stands of pickleweed in the upper region of salt marshes that flood only during extremely high spring tides are its preferred nesting habitat. Belding's savannah sparrow forages on insects in the marsh and intertidal zone as well as in nearby mudflats and salt flats. Although very little is known about the Belding's savannah sparrow's breeding habits, nesting season is typically from April through July. The females build a nest above the highest tide line to avoid being flooded. The nest materials are composed of pickleweed twigs and hair. Though the Belding's savannah sparrow has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the Belding's savannah sparrow. The Belding's savannah sparrow is ***absent*** from the study area.

California Brown Pelican (*Pelecanus occidentalis californicus*). The California brown pelican is listed as endangered by the USFWS and the CDFG. The California brown pelican nests on coastal islands of small to moderate size, which afford protection from attack by ground-dwelling predators. Though the California brown pelican has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the California brown pelican. The California brown pelican is ***absent*** from the study area.

Coastal California Gnatcatcher (*Polioptila californica californica*). The coastal California gnatcatcher is listed as threatened by the USFWS. The coastal California gnatcatcher is an

obligate resident of Southern California coastal sage scrub communities near arid hillsides, mesas, and washes. Though the coastal California gnatcatcher has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the coastal California gnatcatcher. The coastal California gnatcatcher is ***absent*** from the study area.

California Least Tern (*Sterna antillarum* ssp. *browni*). The California least tern is listed as endangered by the USFWS and the CDFG. The California least tern is a medium-sized black and white migratory bird. Historic nesting sites were primarily sandy, ocean beach strand areas near estuaries and river mouths. Locally, it breeds from April to September along the coast of southern California in abandoned salt ponds, on sandy beaches, and along estuarine shores. Though the California least tern has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the California least tern. The California least tern is ***absent*** from the study area.

Least Bell's Vireo (*Vireo bellii pusillus*). The least Bell's vireo is listed as endangered by the USFWS and endangered by the CDFG. The least Bell's vireo is a summer resident of cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes. Although they have been documented in a variety of habitats, they are found almost exclusively in riparian woodlands. Currently, its breeding range is limited to southern California, with large populations in Riverside and San Diego counties and smaller populations in Santa Barbara, Ventura, and San Diego counties and in northern Baja California, Mexico. The least Bell's vireo is also very sensitive to human-generated disturbance from sources such as noise from off-road vehicle use or continued human presence and nighttime lighting. The study area does not provide suitable habitat for the least Bell's vireo. In addition, the least Bell's vireo has not been observed within a 5-mile radius of the study area. The least Bell's vireo is ***absent*** from the study area.

Fish

Steelhead (*Oncorhynchus mykiss*). The southern California Evolutionarily Significant Unit (ESU)[3] of steelhead is listed as endangered by the National Marine Fisheries Service (NMFS) (71 FR 834). The federal listing refers to populations from the Santa Maria River (San Luis Obispo County) south, to the southern extent of range (San Mateo Creek in San Diego County). Critical habitat was designated for this ESU in 2005 that does not include the project area (70 FR 52488). Southern steelhead occur in streams with continuous supply of relatively cool clean water. They are often associated with southern sycamore alder riparian woodland and other riparian habitat that provide shade to the streams. To be considered true steelhead they need seasonal, or less frequent, access to the ocean where juveniles are reared before returning to spawn in freshwater. The study area does not provide suitable habitat for the southern steelhead. In addition, the southern steelhead has not been observed within a 5-mile radius of the study area. The southern steelhead is ***absent*** from the study area.

Invertebrates

El Segundo Blue Butterfly (*Euphilotes battoides allyni*). The El Segundo blue butterfly is listed as endangered by the USFWS. The El Segundo blue butterfly is restricted to remnant coastal dune habitat in southern California. Though the El Segundo blue butterfly has been observed within a 5-mile radius of the study area, the study area does not provide suitable

[3] The term ESU is used interchangeably with Distinct Population Segment (DPS) in current federal publications. The FESA allows listing of DPS of vertebrates.

habitat for the El Segundo blue butterfly. The El Segundo blue butterfly is ***absent*** from the study area.

Mammals

Pacific Pocket Mouse (*Perognathus longimembris pacificus*). The Pacific pocket mouse is listed as endangered by the USFWS. Historically, the Pacific pocket mouse's range extended from Los Angeles County south to the Mexican border. Currently, the Pacific pocket mouse has been found on fine-grain, sandy substrates, in open coastal sage scrub, coastal strand, coastal dune, and river alluvium habitats, up to 2.5 miles from the coast. The extant populations are restricted to only three known locales, within open coastal sage scrub habitats, in northern San Diego County and southern Orange County. Though the Pacific pocket mouse has been observed within a 5-mile radius of the study area, the study area does not provide suitable habitat for the Pacific pocket mouse. The Pacific pocket mouse is ***absent*** from the study area.

3.2.2 Other ("Nonlisted") Sensitive Biological Resources

Vegetation

Plants

In addition to the federally and state-listed species above, based on the literature review, 21 nonlisted sensitive plant species were reported by the CNDDB as occurring within the USGS 7.5-minute quadrangle maps for Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and Van Nuys and the CNPS's Inventory of Rare and Endangered Plants for the USGS 7.5-minute quadrangle map for Beverly Hills. These sensitive plant species, their current status, and their habitat requirements are summarized in Appendix B.

Taking into account the on-site habitat of the study area, and the closest known historical occurrence, elevation, and habitat requirements/restrictions of these species, all of the 21 additional sensitive plant species listed in Appendix B are considered ***absent from the study area***.

Vegetation Communities

Sensitive vegetation communities are considered important because of their high native species diversity, high productivity, limited distribution, declining status, or a combination of these qualities. These communities are recognized as important by federal, state, and local agencies. No sensitive vegetation communities, including wetlands, southern coastal salt marsh, or southern dune scrub, were observed within the study area. Refer to Appendix B for a complete list of sensitive vegetation communities occurring within the USGS 7.5-minute quadrangle maps for Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and Van Nuys.

Wildlife

In addition to the federally and state-listed species above, based on the literature review, 29 nonlisted sensitive wildlife species not afforded protection by the state or federal *Endangered Species Act* were reported by the CNDDB as occurring within the USGS 7.5-minute quadrangle maps for Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and

Van Nuys. Of these, one species (monarch butterfly) was observed within the study area during the biological field survey. These sensitive wildlife species, their current status, and their habitat requirements are summarized in Appendix B.

Taking into account the on-site habitat of the study area, and the closest known historical occurrence, elevation, and habitat requirements/restrictions of each species, other than the monarch butterfly (which was observed within the study area and is described below), ten species have a low potential to occur within the study area and eighteen are ***considered absent***.

Monarch Butterfly (*Danaus plexippus*). The monarch butterfly is not listed by the USFWS or CDFG; however, it is classified as "S3" by the CDFG, meaning that it has "limited distribution or numbers, but no current threats known." The CDFG does not consider individual monarch butterflies a sensitive resource, but they do consider monarch butterfly winter roosting sites a sensitive resource (CDFG 2008). The monarch butterfly winter roost sites are found along the coast from northern Mendocino County, California, to Baja California, Mexico. Monarch butterfly winter roost sites are typically located in wind-protected tree groves (eucalyptus, pine, and cypress), with nectar and water sources nearby. Monarch butterfly winter roosting sites have been reported within a 1-mile radius of the study area, and the study area provides suitable roosting habitat for the monarch butterfly. On a survey conducted near the end of the roosting period (March 2007), several individual monarch butterflies were ***observed*** within the study area. All of these butterflies were observed at the same grove of eucalyptus trees within Segment 1, leading to the possibility that there is a winter roost at this location.

4. ENVIRONMENTAL CONSEQUENCES, DISCUSSION OF IMPACTS AND RECOMMENDED MITIGATION

4.1 Analytic Method

An evaluation of whether an adverse effect on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial adverse effects would be those that would diminish or result in the loss of an important biological resource or those that would conflict with federal, state, or local resource conservation plans, goals, or regulations. Adverse effects are sometimes locally adverse, but not substantially adverse, because they would result in an adverse alteration of existing conditions, but they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis.

Sensitive Plant Species

Thirty-four sensitive plant species (13 listed and 21 nonlisted) were reported as occurring within the USGS 7.5-minute Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and Van Nuys quadrangle maps by the CNDDB and the CNPS's Inventory of Rare and Endangered Plants for the USGS 7.5-minute quadrangle map for Beverly Hills, and potentially occurring within USGS 7.5-minute quadrangle map for Beverly Hills by the USFWS Endangered Species List (refer to Appendix B). Taking into account the on-site habitat of the study area, and the closest known historical occurrence, elevation, and habitat requirements/restrictions of these 34 sensitive plant species, no federally or state-listed

endangered, threatened, or candidate, or nonlisted sensitive, plant species would have a ***moderate*** or greater potential to occur within the study area. Furthermore, no sensitive plant species were observed during the biological field survey (refer to Appendix A). Therefore, the proposed project would not directly or indirectly affect endangered, threatened, candidate, or nonlisted sensitive, plant species.

Sensitive Vegetation Communities of Concern

The CNDDB reported seven vegetation communities as occurring within the USGS 7.5-minute Beverly Hills, Inglewood, Venice, Topanga, Canoga Park, Hollywood, Burbank, and Van Nuys quadrangle maps (refer to Appendix B). Because the study area is highly urbanized, vegetation communities are limited to urban landscape and ruderal, neither of which is considered a sensitive resource. These two vegetation community types do not support high species diversity or high productivity, and are not limited in distribution or coverage. Therefore, the proposed project would not directly or indirectly affect a sensitive vegetation community.

Sensitive Wildlife Species of Concern

Taking into account the on-site habitat of the study area, and the closest known historical occurrence, elevation, and habitat requirements/restrictions of these 41 sensitive wildlife species (12 listed and 29 nonlisted), no federally or state-listed endangered, threatened, or candidate wildlife species would have a moderate or greater potential to occur within the study area. Furthermore, no endangered, threatened, or candidate wildlife species were observed during the biological field survey (refer to Appendix A). Therefore, the proposed project would not directly or indirectly affect endangered, threatened, or candidate wildlife species

The monarch butterfly is not federally or state listed, but the CDFG does consider monarch butterfly winter roosting sites a sensitive resource (CDFG 2008). The monarch butterfly was observed within the study area. This species is discussed in more detail in Impact NES-1 in Section 4.4 (Assessment of Effects and Impacts), below.

Migratory avian species may use portions of all of the LRT Alignment options and the proposed maintenance facility, during the breeding season. These species are protected under the MBTA and Section 3503 of the *Fish and Game Code* (detailed in Section 2.5.1 [Federal] and Section 2.5.2 [State]). The proposed project could cause the disturbance of nests occupied by these avian species.

Wildlife Movement

The study area is not part of a major or local wildlife corridor/travel route because it does not connect two significant habitats. It is surrounded by industrial, commercial, office, and residential uses, as well as two heavily travelled interstate highways and six- and four-lane surface streets. Because of these conditions, the study area does not provide any wildlife movement opportunities, such as travel routes, wildlife crossings, or wildlife corridors.

4.2 CEQA Environmental Criteria

The FTA and Expo Authority have identified the following CEQA criteria, which are taken or adapted from Appendix G of the 2008 CEQA Guidelines, as appropriate for the proposed project. The FTA does not have specific criteria for evaluating effects under NEPA; therefore,

the FTA and Expo Authority have determined that an assessment based on CEQA criteria provides a reasonable means for determining environmental effects. The proposed project would have significant impacts on biological resources, for the purposes of NEPA and CEQA, if the project would result in any of the following:

- Result in a substantial adverse effect on any federally, state-, or locally designated sensitive species, including threatened, endangered, or candidate species as identified by the United States Fish and Wildlife Service and/or California Department of Fish and Game
- Result in a substantial adverse effect on riparian habitat or other sensitive natural communities
- Remove or have an adverse effect on any federally protected wetlands
- Interfere with the movement of any native or migratory fish or wildlife species
- Conflict with local policies or ordinances protecting biological resources
- Conflict with the provisions of an adopted Habitat Conservation Plan

4.3 NEPA Environmental Criteria

For the evaluation of effects related to biological resources, the FTA and Expo Authority have not identified any additional criteria based on the Council on Environmental Quality's NEPA regulations or other applicable guidance. As discussed above, the FTA does not have specific criteria for evaluating effects under NEPA; therefore, the FTA and Expo Authority have determined that an assessment based on CEQA criteria provides a reasonable means for determining environmental effects.

4.4 Assessment of Effects and Impacts

Criterion	**Would the project result in a substantial adverse effect on any federally, state-, or locally designated sensitive species, including threatened, endangered, or candidate species as identified by the United States Fish and Wildlife Service and/or California Department of Fish and Game?**

No-Build Alternative

There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. Neither the I-405 Widening project nor the bus and other improvements under the No-Build Alternative would disturb eucalyptus trees that serve as habitat for the monarch butterfly. Therefore, ***no effect*** would occur to a sensitive biological species.

Within the Expo Phase 2 ROW, the No-Build Alternative could remove trees that could affect nesting migratory birds. A pre-construction survey for nesting birds would be conducted prior to implementation of the roadway improvements and feasible mitigation measures would be

implemented. As a result, a ***no adverse effect*** to nesting migratory birds would occur as a result of the project.

Transportation Systems Management (TSM) Alternative

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses that would not disturb eucalyptus trees. As with the No-Build Alternative, the TSM Alternative would result in ***no effect*** to sensitive biological species. In addition, those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses. As with the No-Build Alternative, the TSM Alternative would result in a ***no adverse effect*** to nesting migratory birds.

LRT Alternatives

Impact NES-1 Implementation of the proposed project would result in *no effect* to monarch butterfly winter roosting habitat.

The adult monarch butterfly migrates from August through October, flying from as far away as southern Canada to winter along the California coast and in central Mexico (Big Sky Institute 2007). Along the California coast, the monarch butterfly predominately roosts in dense aggregations, in eucalyptus, pine, and cypress groves (CNDDB 2007). Most have mated before they leave for the north in the spring, and females lay eggs along the way (Big Sky Institute 2007). The monarch butterfly is not a federally or state-listed endangered, threatened, or candidate species; however, the CDFG does consider monarch butterfly winter roosting sites a sensitive resource (CDFG 2008).

A small colony of (approximately eight) monarch butterfly was observed within Segment 1, around a eucalyptus windrow along the southern boundary of the ROW, during the March 7, 2007, biological field survey. Within the past 20 years, monarch butterfly winter roosting sites have been recorded by the CNDDB in three different locations within 1 mile of the study area, and at two other locations within 5 miles of the study area, all of which consist of eucalyptus, pine, and/or riparian habitat.

Because a single survey of Segment 1 was conducted at the end of the winter roosting period, it is unknown whether the eucalyptus trees within Segment 1, where monarch butterflies were observed, are a winter roosting site. However, implementation of the LRT itself would not require removal of these trees; therefore, the operational impact of the proposed project would be ***no effect***.

FEIR Design Options

Implementation of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood Station No Parking design options would involve the redesign of certain elements within the proposed alignment. However, these design options would involve construction in the existing area of disturbance that was analyzed for the LRT Alternatives. This includes the existing Santa Monica College parking lot that would be used for the Maintenance Facility Buffer Design Option, which was analyzed in the “urban landscape” area in the original NES prepared for the LRT Alternatives. Since the proposed design options are not anticipated to impact resource

areas beyond those originally contemplated as part of the LRT Alternatives, ***no effect*** as a result of the proposed design options would occur.

Impact NES-2 Implementation of the proposed project could result in an adverse effect on MBTA protected species and/or avian species protected under Section 3503 of the *Fish and Game Code*; however, implementation of mitigation measure MM NES-1, below, would ensure that *no adverse effect* to MBTA-protected species and/or avian species protected under Section 3503 of the *Fish and Game Code* would occur.

Nesting birds are protected by both federal and state regulations. The MBTA fully protects all migratory birds and their parts (including eggs, nests, and feathers) (USFWS 2007). The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many relatively common species, such as the American robin (*Turdus migratorius*) or the Brewer's blackbird (*Euphagus cyanocephalus*). Section 3503 of the *Fish and Game Code* makes it unlawful to take, possess, or destroy any avian species listed within the Code, or to take, possess, or destroy their nest or eggs.

Bird nests were observed within the trees in the residential areas adjacent to Segment 1 during the December 19, 2007, biological field survey. It could not be determined at the time of the field survey which species occupied these nests. In addition, the study area also presents many nesting opportunities for birds. Areas with suitable nesting habitat include the trees lining the alignments, along proposed street widenings, and trees within the property of the proposed Stewart Street maintenance facility. Examples of birds protected by the MBTA and Section 3503 of the *Fish and Game Code* that might nest in the study area include the American crow (*Corvus brachyrhynchos*), mourning dove, and northern flicker (*Colaptes auritus*). All of these species were observed within the study area.

The removal of an active nest of a MBTA and/or *Fish and Game Code* protected species would be a violation of the MBTA and/or *Fish and Game Code*. The magnitude of the adverse effect would depend on the species affected. For example, the loss of an American robin nest is less of an adverse effect than the loss of a least Bell's vireo (*Vireo bellii pusillus*) nest, even though both are afforded equal protection under the MBTA. This is because the least Bell's vireo is a federal- and state-listed endangered species, and would have greater protection under these two *Endangered Species Act*s.

Mitigation measure MM NES-1 would reduce potential adverse effects to the nests of MBTA and *Fish and Game Code* protected birds. ***No adverse effect*** would occur.

MM NES-1 *During construction of the proposed project, the removal of trees, shrubs, or weedy vegetation should be avoided during the February 1 through August 31 bird nesting period. If the removal of trees, shrubs, or weedy vegetation were to occur during the nesting period, a survey for nesting birds shall be conducted by a qualified wildlife biologist no earlier than 14 days prior to the removal of trees, shrubs, grassland vegetation, buildings, or other construction activities. Survey results shall be valid for 21 days following the survey. The area surveyed should include all construction areas with the potential to support nesting birds protected by the MBTA and/or Section 3503 of the Fish and Game Code, as well as areas within 75 feet of the boundaries, as practicable or as determined by the biologist in the field, of the areas to be cleared or as otherwise determined by the biologist. If no*

vegetation or tree removal is proposed during the nesting period, no surveys would be required.

In the event that an active nest is discovered in the areas to be cleared, or in other habitats within 75 feet of construction boundaries, clearing and construction should be postponed within this area for at least two weeks or until a wildlife biologist has determined that the young have fledged (left the nest), the nest is vacated, and there is no evidence of second nesting attempts. Other buffers or construction requirements may be determined by the wildlife biologist in the field as practicable.

FEIR Design Options

Implementation of the of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood Station No Parking design options would involve minor modifications to the construction footprint of the LRT Alternative. However, these design options would involve construction in the existing area of disturbance that was analyzed for the LRT Alternatives. This includes the existing Santa Monica College parking lot that would be used for the Maintenance Facility Buffer Design Option, which was analyzed in the "urban landscape" area in the original NES prepared for the LRT Alternatives. Since the proposed design options are not anticipated to impact resource areas beyond those contemplated as part of the LRT Alternatives, impacts would remain ***no adverse effect*** with implementation of MM NES-1.

CEQA Determination

No Impact. There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. Neither the I-405 Widening project nor the bus and other improvements under the No-Build Alternative would disturb eucalyptus trees that serve as habitat for the monarch butterfly. Therefore, ***no impact*** would occur to a sensitive biological species.

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses that would not disturb eucalyptus trees. As with the No-Build Alternative, the TSM Alternative would result in ***no impact*** to sensitive biological species.

Implementation of the LRT itself would not require removal of these trees; therefore, the operational impact of the proposed project would be ***no impact***.

Less-Than-Significant Impact. There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. Within the Expo Phase 2 ROW, the No-Build Alternative could remove trees that could affect nesting migratory birds. A pre-construction survey for nesting birds would be conducted prior to implementation of the roadway improvements and feasible mitigation measures would be implemented. As a result, a ***less-than-significant*** impact to nesting migratory birds would occur as a result of the project.

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses. As with the No-Build Alternative, the TSM Alternative would result in a ***less-than-significant*** impact to nesting migratory birds.

Implementation of mitigation measure MM NES-1 would reduce potential effects to MBTA protected species and/or avian species protected under Section 3503 of the *Fish and Game Code* to a ***less-than-significant*** level for all LRT Alternatives.

Criterion	**Would the project result in a substantial adverse effect on riparian habitat or other sensitive natural communities?**

Impact NES-3 Implementation of the proposed project would not result in a substantial adverse effect on riparian habitat or other sensitive natural communities. Therefore, *no adverse effect* would occur.

No-Build Alternative

There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. Within the Expo Phase 2 ROW, there is neither riparian habitat nor other sensitive natural communities. Bus and other on-street improvements are also proposed in the No-Build Alternative, but these would occur on already paved streets. Therefore, the No-Build Alternative would have ***no impact*** on these resources.

Transportation Systems Management (TSM) Alternative

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses. As with the No-Build Alternative, the TSM Alternative would not directly or indirectly affect a riparian habitat or other sensitive natural community, and ***no impact*** would occur to these resources.

LRT Alternatives

With regard to riparian habitat or other sensitive natural communities, the CNDDB reported seven vegetation communities as occurring within the eight relevant USGS 7.5-minute quadrangle maps. Because the study area is highly urbanized, vegetation communities are limited to urban landscape and ruderal, neither of which is considered a sensitive biological resource. These two vegetation community types do not support high species diversity or high productivity and are not limited in distribution or coverage. Therefore, the LRT Alternatives would not directly or indirectly affect a riparian habitat or other sensitive natural community. ***No effect*** would occur to riparian habitat or other natural communities.

FEIR Design Options

Implementation of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood

Station No Parking design options would involve the redesign of certain elements within the proposed alignment. Neither riparian habitat nor other sensitive natural communities occur within the study area. Since the proposed design options are not anticipated to impact resource areas beyond originally contemplated as part of the LRT Alternatives, ***no effect*** as a result of implementation of the proposed design options would occur.

CEQA Determination

No Impact. Implementation of the No-Build Alternative and TSM Alternative would not include construction activities, and the LRT Alternatives would not encounter riparian habitat or other sensitive natural communities and would result in ***no impact*** to riparian habitat or other natural communities.

Criterion	**Would the project remove or have an adverse effect on any federally protected wetlands?**

Impact NES-4 **Implementation of the proposed project could remove or have an adverse effect on federally protected wetlands through the reconstruction and widening of the Sepulveda Channel box culvert that crosses under Sepulveda Boulevard; however, compliance with Section 404 of the *Clean Water Act* and/or Section 1600 et seq. of the *California Fish and Game Code*, would ensure that *no adverse effect* to federally protected wetlands would occur.**

No-Build Alternative

There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. There are no federally regulated wetlands within this portion of the Expo Phase 2 ROW area. Bus and other on-street improvements are also proposed but these would occur on already paved streets. Since there are no federally regulated wetlands within this area, the No-Build Alternative would result in ***no effect.***

Transportation System Management (TSM) Alternative

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses. As with the No-Build Alternative, there are no federally regulated wetlands, and the TSM Alternative would result in ***no effect.***

LRT Alternatives

If the proposed project utilizes Segment 1a, the LRT Alternatives would traverse Sepulveda Boulevard and cross over the Sepulveda Channel. Construction of Segment 1a would include free-spanning the existing Sepulveda Channel crossing of Sepulveda Boulevard. If the box culvert below Sepulveda Boulevard does not have to be expanded, then there is ***no effect*** to wetland resources, and no mitigation is required. However, while not anticipated, it may be necessary to reconstruct and widen the box culvert (through which the Sepulveda Channel

crosses under Sepulveda Boulevard) to withstand the increased LRT loads and to accommodate the increased width of Sepulveda Boulevard necessary for the LRT trackway. This action would require work within the creek channel that would include fill of waters of the United States.

If selected, this alternative would be required to comply with federal or state regulations governing protection of wetlands. Accordingly, it would be necessary to first delineate the area subject to the USACE and/or CDFG jurisdiction, calculate areas of adverse effect (if necessary), and develop a mitigation plan if potential adverse effects to USACE and/or CDFG jurisdiction would occur (pursuant to Section 404 of the *Clean Water Act* and/or Section 1600 et seq. of the *California Fish and Game Code*). If a Section 404 permit would be required from the USACE, consultation with the RWQCB would be necessary to determine whether a Section 401 permit would be required as well. Fulfillment of the permit conditions and required mitigation would result in ***no adverse effect*** to wetland resources.

FEIR Design Options

Implementation of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood Station No Parking design options would not involve construction activities in the vicinity of the Sepulveda Channel. As such, no impact as a result of implementation of the proposed design options would occur, and the impact of the LRT Alternatives with the design options included would result in ***no adverse effect***.

CEQA Determination

No Impact. There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. There are no federally regulated wetlands within this portion of the Expo Phase 2 ROW area. Bus and other on-street improvements are also proposed but these would occur on already paved streets. Since there are no federally regulated wetlands within this area, the No-Build Alternative would result in ***no impact***.

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses. As with the No-Build Alternative, there are no federally regulated wetlands, and the TSM Alternative would result in ***no impact***.

Less-Than-Significant Impact. Implementation of permit conditions and mitigation resulting from the federal Section 404 process or the state Section 1600 process would reduce potential effects to state- or federally protected waters of the United States and/or other jurisdictional areas to a ***less-than-significant*** level for Segment 1a of the LRT Alternatives.

Criterion	**Would the project interfere with the movement of any native or migratory fish or wildlife species?**

Impact NES-5 Implementation of the proposed project would not interfere with the movement of any native or migratory fish or wildlife species. Therefore, *no effect* would occur.

No-Build Alternative

There would be roadway and transit service improvements associated with the No-Build Alternative. The Expo Phase 2 study area does not provide a major or local wildlife corridor or travel route because it does not connect two significant habitats for either fish or wildlife species; therefore, ***no effect*** would occur.

Transportation Systems Management (TSM) Alternative

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. As with the No-Build Alternative, there are no major or local wildlife corridors or travel routes; therefore, ***no effect*** would occur.

LRT Alternatives

With regard to the movement of native or migratory fish or wildlife species, the study area does not provide a major or local wildlife corridor or travel route because it does not connect two significant habitats for either fish or wildlife species. Therefore, development of the LRT Alternatives would not disrupt the movement of any native or migratory fish or wildlife species. ***No effect*** would occur with regards to the movement of native or migratory fish or wildlife species.

FEIR Design Options

Implementation of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood Station No Parking design options would involve the redesign of certain elements within the proposed alignment. The study area does not provide a major or local wildlife corridor or travel route because it does not connect two significant habitats for either fish or wildlife species. Therefore, development of the design options would not disrupt the movement of any native or migratory fish or wildlife species. Since the proposed design options are not anticipated to impact resource areas beyond originally contemplated as part of the LRT Alternatives, ***no effect*** as a result of implementation of the proposed design options would occur.

CEQA Determination

No Impact. There would be roadway and transit service improvements associated with the No-Build Alternative. The Expo Phase 2 study area does not provide a major or local wildlife corridor or travel route because it does not connect two significant habitats for either fish or wildlife species; therefore, ***no impact*** would occur.

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. As with the No-Build Alternative, there are no major or local wildlife corridors or travel routes; therefore, ***no impact*** would occur.

LRT Alternatives would not encounter a major or local wildlife corridor or travel route and would result in ***no impact*** to the movement of native or migratory fish or wildlife species.

Criterion	**Would the project conflict with any local policies or ordinances protecting biological resources?**

Impact NES-6 Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources. Therefore, *no effect* would occur.

No-Build Alternative

There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. Neither the I-405 Widening project nor the on-street bus and other improvements under the No-Build Alternative would conflict with local policies or ordinances protecting biological resources. Therefore, there would be ***no effect***.

Transportation Systems Management (TSM) Alternative

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses, but they would not conflict with local policies or ordinances protecting biological resources. As with the No-Build Alternative, the TSM Alternative would result in ***no effect***.

LRT Alternatives

With regard to conflicts with local policies or ordinances, the study area contains oak trees, protected trees, and street trees. Depending on the alternative selected, if the final alignment should remove any of these trees, permits would be requested prior to the removal or trimming of oak trees (pursuant to the County of Los Angeles regulations), protected trees (pursuant to the City of Los Angeles regulations), and/or street trees (pursuant to the cities of Santa Monica and Culver City regulations). In addition, the City of Culver City would require a permit prior to the introduction of any vegetation within any of its streets or parkways. The Expo Authority would request such permit.

The coral trees located on Olympic Boulevard would be removed if the proposed project utilizes Segment 3, but they are not considered a sensitive biological resource (other than as nesting habitat). The removed trees could be replaced per the *Metro Design Criteria* which states that street trees and landscaped areas shall be replaced on a one-for-one basis, subject to local jurisdictional requirements for minimum size, species, and set-back requirements.

Further, all light-rail projects must comply with landscaping and tree standards identified in Section 2.12.1 (Flora) and Section 3.12.15 (Landscape Areas and Street Trees) of the 2007 *Metro Design Criteria* for the Exposition LRT Project as follows:

- **2.12.1 Flora**

  As a result of implementing the Light Rail Projects, it will be necessary to remove some landscaped areas and street trees. Where existing vegetation must be removed, new landscaping shall be planted where possible and appropriate, the placement and types of which shall be as specified in an established landscaping plan. The landscaping plan shall include a master plant list, which shall call for new vegetation that is designed to conform to the surrounding environment and enhance its visual appeal. The landscaping plan shall extend to the system right-of-way, station, parking, and public areas, and other areas of fixed system facilities. A program shall be developed, as part of the overall operating procedures for the Light Rail System, which shall provide for the regular maintenance of landscaping owned by Metro.

  The design of landscaping shall be prepared as part of the rail facilities' detailed engineering and included in facilities contract documents. In station areas, landscaping may match the theme of the station adopted by the designer. In public right of ways, Metro's agreement with the City of Los Angeles states that street trees shall be replaced on a one for one basis with a 24-inch diameter box tree minimum. The trees are given a three-year warranty and 12 months of maintenance is performed as part of the contract requirement.

- **3.12.15 Landscape Areas and Street Trees**

  1. Street trees and landscaped areas shall be preserved wherever practicable. The Designer shall indicate the trees to be removed and replaced, and those that are to be protected. Subject to local jurisdiction, street trees are to be replaced on a one for one basis with 36" box standard. The tree species shall be designated by the local jurisdiction. Tree location shall be coordinated with the location of other sidewalk features, such as streetlights, fire hydrants, station appurtenances, and underground utilities and basements.
  2. If trees cannot be maintained during construction, existing landscaped areas shall be restored after construction to the original condition to the extent possible, with street trees to be replaced.

     All work involving street trees and landscaped areas shall conform to specifications, criteria, and practices of the agencies having jurisdiction.

The removal of trees within the study area is discussed further in the Aesthetics and Visual Quality section with respect to any potential visual adverse effects and the Land Use section with respect to existing General Plan policies regarding tree removal within Santa Monica. Therefore, development of the LRT Alternatives would not conflict with local policies or ordinances, and ***no effect*** would occur.

FEIR Design Options

The Expo Authority would request any and all necessary permits prior to removal of any street trees associated with implementation of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood Station No Parking design options. As such, no additional impact as a result

of implementation of the proposed design options would occur, and as result, ***no adverse effect*** would occur.

CEQA Determination

No Impact. There would be roadway and transit service improvements associated with the No-Build Alternative. However, the only improvement that would change the physical environment in the Expo Phase 2 ROW would be the I-405 Widening project. Neither the I-405 Widening project nor the on-street bus and other improvements under the No-Build Alternative would conflict with local policies or ordinances protecting biological resources. Therefore, there would be ***no impact***.

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. Those additional improvements would include minor physical modifications such as upgraded bus stops and additional buses, but they would not conflict with local policies or ordinances protecting biological resources. As with the No-Build Alternative, the TSM Alternative would result in ***no impact***.

Implementation of the LRT Alternatives would require permits, and would not conflict with local policies or ordinances protecting biological resources, and a ***less-than-significant*** impact would occur.

Criterion	**Would the project conflict with the provisions of an adopted Habitat Conservation Plan?**

Impact NES-7 Implementation of the proposed project would not conflict with an adopted Habitat Conservation Plan. Therefore, *no effect* would occur.

No-Build Alternative

There would be roadway and transit service improvements associated with the No-Build Alternative. No conservation plans have been established for any portion of the Expo Phase 2 study area. Therefore, development of the No-Build Alternative would not conflict with an adopted Habitat Conservation Plan, and ***no effect*** would occur.

Transportation Systems Management (TSM) Alternative

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. No conservation plans have been established for any portion of the study area. Therefore, development of the TSM Alternative would not conflict with an adopted Habitat Conservation Plan, and ***no effect*** would occur.

LRT Alternatives

No conservation plans have been established for any portion of the study area; therefore, no effect would occur related to conflicts with an adopted conservation plans. Therefore, development of the LRT Alternatives would not conflict with an adopted Habitat Conservation Plan, and ***no effect*** would occur.

FEIR Design Options

As identified above, no habitat conservation plans have been established for any portion of the study area. Thus, ***no effect*** with respect to an adopted Habitat Conservation Plan would occur as a result of implementation of the Sepulveda Grade Separation, Colorado Parking Retention, Colorado/4th Parallel Platform and South Side Parking, Maintenance Facility Buffer, or Expo/Westwood Station No Parking design options.

CEQA Determination

No Impact. There would be roadway and transit service improvements associated with the No-Build Alternative. No conservation plans have been established for any portion of the Expo Phase 2 study area. Therefore, development of the No-Build Alternative would not conflict with an adopted Habitat Conservation Plan, and ***no impact*** would occur.

The TSM Alternative would include all of the improvements under the No-Build Alternative and new on-street bus services to directly serve the Expo Phase 2 community transit needs. No conservation plans have been established for any portion of the study area. Therefore, development of the TSM Alternative would not conflict with an adopted Habitat Conservation Plan, and ***no impact*** would occur.

No adopted Habitat Conservation Plan exists for the study area, therefore, implementation of the LRT Alternatives would not conflict with an adopted Habitat Conservation Plan, and ***no impact*** would occur.

4.5 Assessment of Cumulative Impacts

A cumulative analysis addresses the impacts of the proposed project in combination with other planned and approved projects. This analysis evaluates the proposed project along with planned and approved development within the project vicinity. This cumulative impact analysis considers construction of the proposed project in conjunction with existing, proposed, and reasonably foreseeable development in the cities of Los Angeles, Santa Monica, and Culver City. As no impacts were identified for the No-Build and TSM Alternatives, those alternatives are not addressed in this cumulative impact analysis.

Criterion	**Would the project result in a substantial adverse effect on any federally, state-, or locally designated sensitive species, including threatened, endangered, or candidate species as identified by the United States Fish and Wildlife Service and/or California Department of Fish and Game?**

Monarch Butterfly

The geographic context of cumulative impacts to known monarch butterfly winter roosting sites is the coast of southern California, in particular, the coastal region of Los Angeles County. Because of the high value of real estate in the region's coastal area, which is already almost completely built out, known monarch butterfly winter roosting sites are typically only found in protected areas, such as preserves, reserves, or state parks. While there is no accurate estimate of the number of winter roosting sites in the region, the loss of a known roosting site in the region would contribute to a significant cumulative reduction of monarch butterfly winter

roosting sites because of the regions already built out, urban nature (CDFG 2008). As a result, the proposed project would not contribute to a significant cumulative reduction of monarch butterfly winter roosting sites, and ***no adverse cumulative impacts*** will occur.

Nesting Birds

The geographic context of cumulative impacts to MBTA and *Fish and Game Code* protected species is the 5-mile vicinity around the study area. This area provides an abundance of nesting opportunities. The loss of nesting opportunities within the study area (removal of street trees and landscaping) would force birds within the study area to nest elsewhere within the vicinity. Street trees and landscaping are relatively common within the project vicinity. Because the nesting birds that might be displaced by the proposed project do not require highly specialized nesting habitat, and an abundance of nesting opportunities are available within the vicinity of the study area, the proposed project would not contribute to cumulative reduction in nesting habitat. In addition, the avoidance and minimization efforts required above in mitigation measure MM NES-1 would ensure minimal direct impact to nesting birds. Furthermore, similar mitigation measures would be imposed on other foreseeable development projects within the study and reduce the effects of those projects to less than cumulatively considerable as well. Therefore, ***no adverse cumulative effects*** would occur.

Criterion	**Would the project result in a substantial adverse effect on riparian habitat or other sensitive natural communities?**

Because the study area is highly urbanized, vegetation communities are limited to urban landscape and ruderal, neither of which is considered a sensitive resource. These two vegetation community types do not support high species diversity or high productivity and are not limited in distribution or coverage. Therefore, the No-Build Alternative, the TSM Alternative, and the LRT Alternatives would not directly or indirectly affect a riparian habitat or other sensitive natural community. ***No cumulative effect*** would occur to riparian habitat or other natural communities.

Criterion	**Would the project remove or have an adverse effect on any federally protected wetlands?**

If the proposed project utilizes Segment 1a, the LRT Alternatives would traverse Sepulveda Boulevard and cross over the Sepulveda Channel. Construction of Segment 1a would include free-spanning the existing Sepulveda Channel crossing of Sepulveda Boulevard. However, while not anticipated, it may be necessary to reconstruct and widen the box culvert (through which the Sepulveda Channel crosses under Sepulveda Boulevard) to withstand the increased LRT loads and to accommodate the increased width of Sepulveda Boulevard necessary for the LRT rail.

Implementation of permit conditions and mitigation required by the USACE and/or CDFG would reduce potential effects to state- or federally protected waters of the United States and/or other jurisdictional areas to a less-than-significant level for Segment 1a of the LRT Alternatives. The same state and federal regulations protective of wetlands would apply to other foreseeable development projects in the study area. The resulting mitigation and permitting requirements

would thus reduce the effects of those projects to less than cumulatively considerable as well. As a result, ***no adverse cumulative effect*** would occur.

Criterion	**Would the project interfere with the movement of any native or migratory fish or wildlife species?**

With regard to the movement of native or migratory fish or wildlife species, the study area does not provide a major or local wildlife corridor or travel route because it does not connect two significant habitats for either fish or wildlife species. Therefore, development of the LRT Alternatives would not disrupt the movement of any native or migratory fish or wildlife species. ***No cumulative effect*** would occur with regards to the movement of native or migratory fish or wildlife species.

Criterion	**Would the project conflict with any local policies or ordinances protecting biological resources?**

With regard to conflicts with local policies or ordinances, the study area contains oak trees, protected trees, and street trees. Depending on the alternative selected, if the final alignment should remove any of these trees, permits would be requested prior to the removal or trimming of oak trees (pursuant to the County of Los Angeles regulations), protected trees (pursuant to the City of Los Angeles regulations), and/or street trees (pursuant to the cities of Santa Monica and Culver City regulations). In addition, the City of Culver City would require a permit prior to the introduction of any vegetation within any of its streets or parkways. The Expo Authority would request such permit. Therefore, development of the LRT Alternatives would not conflict with local policies or ordinances. These same regulations would be applicable to other foreseeable development and reduce the potential for those projects to conflict with local policies or ordinances protecting biological resources. As a result, ***no cumulative effect*** would occur.

Criterion	**Would the project conflict with the provisions of an adopted Habitat Conservation Plan?**

No conservation plans have been established for any portion of the study area; therefore, ***no cumulative effect*** would occur related to conflicts with an adopted conservation plans.

5. PERMITS AND TECHNICAL STUDIES FOR SPECIAL LAWS OR CONDITIONS

5.1 Regulatory Requirements

The study area contains oak, protected, and street trees (refer to Appendix A for a complete list of trees observed within the study area). Depending on the alternative selected, if the final alignment should remove any of these trees, permits would be required from the County of Los Angeles and cities of Los Angeles, Culver City, and Santa Monica, prior to the removal of oak

(County of Los Angeles), protected (City of Los Angeles), and street (cities of Santa Monica and Culver City) trees. In addition, the City of Culver City a permit would be required prior to the introduction of any vegetation within any of its streets or parkways. The coral trees located on Olympic Boulevard would be removed should the proposed project utilize Segment 3, but they are not considered a sensitive biological resource. The removal of trees within the study area is discussed further in the *Aesthetics/Visual Quality Technical Background Report* for any potential visual impact. Minimal consultation with the USFWS and CDFG is expected in relation to the FESA and CESA because the proposed project would not result in impacts to federally or state-listed species, or modifications of designated critical habitat (detailed in Section 5.2 [Federal Endangered Species Act Consultation Summary] and Section 5.3 [California Endangered Species Act Consultation Summary]). The proposed project could impact waters of the U.S. should it utilize Segment 1a. Should the proposed project impact waters of the U.S., a Section 404 permit (detailed in Section 2.5.1 [Federal]) would be required from the USACE (detailed in Section 5.4 [Wetlands and Other Waters Consultation Summary]). In addition, consultation with the RWQCB and CDFG would be necessary to determine if a Section 401 permit and/or streambed alteration agreement under Section 1600 of the *Fish and Game Code* would be required as well (detailed in Section 2.5.1 [Federal] and Section 2.5.2 [State]).

5.2 Federal Endangered Species Act Consultation Summary

Under Section 7 of the FESA, all federal agencies are required to consult with USFWS to ensure that their actions do not jeopardize the continued existence of a listed species, or destroy or adversely modify designated critical habitat. The USFWS would then issue a "Biological Opinion." Because the proposed project would not result in impacts to federally listed species, or modifications of designated critical habitat, after review of the proposed project by the USFWS, the federal lead agency (Federal Transit Administration [FTA]) can make a determination that their action would not affect listed species or designated critical habitat. A Section 7 consultation should be unnecessary.

5.3 California Endangered Species Act Consultation Summary

Under *Fish and Game Code* Section 2080.1, an applicant is allowed to obtain a consistency determination for their project once they have a Biological Opinion or "Incidental Take Permit" from the USFWS. In this process, CDFG is notified in writing and provided a copy of the Biological Opinion and Incidental Take Permit. The CDFG would then make a determination about the consistency of the Biological Opinion and Incidental Take Permit with the CESA. Because the proposed project would not result in impacts to federally or state-listed species, or modifications of designated critical habitat, obtaining a consistency determination should be unnecessary. Additionally, because there are no state-listed species impacted by the proposed project, a permit from CDFG for take of a CESA-protected species under Section 2081 of the *Fish and Game Code* should be unnecessary.

5.4 Wetlands and Other Waters Consultation Summary

If the LRT Alternative option that utilizes Segment 1a is selected, the LRT system would traverse Sepulveda Boulevard and it would cross over the Sepulveda Channel. In construction of this alternative, the current design has the alignment free-spanning the existing Sepulveda Channel crossing along the median of Sepulveda Boulevard. It may be necessary to reconstruct

and widen the box culvert (through which the Sepulveda Channel crosses under Sepulveda Boulevard) to withstand the increased LRT loads and to accommodate the increased width of Sepulveda Boulevard necessary for the LRT trackway.

If the LRT Alternative option that utilizes Segment 1a is selected, it would be necessary to first delineate the area subject to the USACE jurisdiction, calculate areas of fill, develop a mitigation plan, and obtain a permit for the placement of this fill. Consultation with the RWQCB and CDFG would also be necessary to determine if a Section 401 permit and/or streambed alteration agreement under Section 1600 of the *Fish and Game Code* would be required as well.

5.5 California Coastal Commission Consultation Summary

All portions of the proposed project, except for the terminus station between 4th and Main Streets on Colorado Avenue (Segment 3a) appear to be east, and therefore outside of, the California Coastal Zone, and would be outside of the jurisdiction of the California Coastal Commission and the Local Coastal Plan (LCP). Should the final design of the proposed project include the terminus station between 4th and Main Streets, the proposed project would have to demonstrate consistency with the LCP and obtain a permit from the City of Santa Monica. There are no important coastal biological resources that would be affected by the proposed project if it were to cross 4th Street to the west. In preliminary consultation with the California Coastal Commission, the only currently perceived conflict is with loss of parking. Parking is addressed in the *Land Use Technical Background Report*.

5.6 Wildlife Movement

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation can also occur when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or grading activities. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, would not likely persist over time in fragmented or isolated habitat areas because they prohibit the infusion of new individuals and genetic information. Wildlife corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, or individuals extending range distributions); (2) seasonal migration; and (3) local movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). A number of terms have been used in various wildlife movement studies, such as "wildlife corridor," "travel route," "habitat linkage," and "wildlife crossing," to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion of wildlife movement in this analysis, these terms are defined as follows:

- *Travel route*—A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den sites). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another. It contains adequate food, water, and/or cover while moving between habitat areas and provides a relatively direct link between target habitat areas.
- *Wildlife corridor*—A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as "habitat or landscape linkages") can provide both transitory and resident habitat for a variety of species.
- *Wildlife crossing*—A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, bridges, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These often represent "choke points" along a movement corridor.

Within a large open space area in which there are few or no manmade or naturally occurring physical constraints to wildlife movement, wildlife corridors, as defined above, may not yet exist. Given an open space area that is both large enough to maintain viable populations of species and provide a variety of travel routes (canyons, ridgelines, trails, riverbeds, and others), wildlife would use these "local" routes while searching for food, water, shelter, and mates, and would not need to cross into other large open space areas. Based on their size, location, vegetative composition, and availability of food, some of these movement areas (e.g., large drainages and canyons) are used for longer lengths of time and serve as source areas for food, water, and cover, particularly for small- and medium-size animals. This is especially true if the travel route is within a larger open space area. However, once open space areas become constrained and/or fragmented as a result of urban development or construction of physical obstacles, such as roads and highways, the remaining landscape features or travel routes that connect the larger open space areas can "become" corridors as long as they provide adequate space, cover, food, and water, and do not contain obstacles or distractions (e.g., manmade noise, lighting) that could hinder wildlife movement (California Wilderness Coalition, 2000).

The study area is not part of a major or local wildlife corridor/travel route, because it does not connect two significant habitats. It is surrounded by industrial, commercial, office, and residential uses, two heavily travelled interstate highways, and six- and four-lane surface streets. Because of these conditions, the study area does not contain any of the wildlife movement categories previously described (travel route, wildlife crossing, or wildlife corridor). Therefore, development of the proposed project would only disrupt local foraging of avian and ground-dwelling species.

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APPENDIX A PLANT AND WILDLIFE SPECIES OBSERVED WITHIN THE STUDY AREA

Appendix A

Plant and Wildlife Species Observed Within the Study Area

Plants

Scientific Name	Common Name
Acacia baileyana	Cootamundra Wattle
Acacia melanoxylon	Blackwood Acacia
Acacia sp.	Acacia
Aeonium arboreum	Purple Aeonium
Agapanthus africana	Lilly of the Nile
Agave americana	Century Plant
Agave attenuate	Foxtail Agave
Aloe arborescens	Aloe
Aloe maculata	Yellow Soap Aloe
Amaranthus albus	White Pigweed
Anigozanthos manglesii	Kangaroo Paw
Arundo donax	Giant Reed
Asparagus densiflorus	Asparagus Fern
Avena fatua	Wild Oat
Bambusa lako	Timor Black Bamboo
Bauhinia purpurea	Purple Orchid Tree
Betula sp.	Birch
Bougainvillea spectabilis	Bougainvillea
Brassica nigra	Black Mustard
Brachychiton acerifolius	Flame Tree
Bromus diandrus	Rip-Gut Brome
Bromus hordeaceus	Soft Chess
Bromus rubens	Red Brome
Bulbinella sp.	Bulbinella
Buxus microphylla japonica	Japanese Boxwood
Callistemon citrinus	Crimson Bootlebrush
Campanula poskarskyana	Serbian Bellflower
Campsis radicans	Trumpet Vine
Carissa grandiflora	Natal Plum
Casuarina cunninghamiana	River Sheoak
Chamaerops humilis	Mediterranean Fan Palm
Chorisia sp.	Silk Floss Tree
Cichorium intybus	Chicory
Conyza canadensis	Horseweed
Cordyline terminalis	Ti Plant
Cortaderia jubata	Pampas Grass
Cupaniopsis anacardioides	Carrotwood
Cupressus sp.	Cypress
Cynodon dactylon	Bermuda Grass
Cyperus papyrus	Paper Reed

Scientific Name	Common Name
Dasylirion wheeleri	Desert Spoon
Dietes iridioides	Fortnight Lily
Distictis buccinatoria	Scarlet Trumpet Vine
Dodonaea viscosa	Hopseed Bush
Dracaena sp.	Dracaena
Echeveria sp.	Hens and Chicks
Elaeagnus ebbingii	Limelight
Epilobium brachycarpum	Annual Fireweed
Equisetum sp.	Horsetail
Eriobotrya deflexa	Bronze Loquat
Erodium botrys	Filaree
Erodium cicutarium	Red-Stem Filaree
Erythrina crista-galli	Coral Tree
Eucalyptus sp.	Eucalyptus
Euphorbia tirucalli	Milk Bush
Festuca glauca	Blue Fescue
Ficus benjamina	Benjamin's Fig
Ficus elastica	Rubber Fig Tree
Ficus macrocarpa	Indian Laurel Fig Tree
Ficus pumila	Creeping Fig
Foeniculum vulgare	Sweet Fennel
Fraxinus latifolia	Oregon Ash
Gazania linearis	Gazania
Gnaphalium luteo-album	Clammy Cud-Wed
Grevillea robusta	Silk Oak
Hedera canariensis	Canary Island Ivy
Hedera helix	English Ivy
Hemerocallis sp.	Daylily
Heteromeles arbutifolia	Toyon
Heterotheca grandiflora	Telegraph Weed
Hordeum jubatum	Foxtail Barley
Hordeum murinum ssp. *leporinum*	Hare Barley
Impatiens sp.	Impatiens
Jacaranda mimosifolia	Jacaranda
Jasminum multiflorum	Star Jasmine
Juniperus sp.	Juniper
Koelreuteria bipinnata	Chinese Flame Tree
Lactuca serriola	Prickly Lettuce
Lantana camera	Lantana
Ligustrum sp.	Privet
Limonium californicum	Western Marsh-Rosemary
Limonium perezii	Sea Lavender
Liquidambar sp.	Sweet Gum
Lolium multiflorum	Italian Ryegrass
Lonicera japonica	Japanese Honeysuckle

Scientific Name	Common Name
Lophostemon confertus	Brisbane Box
Lupinus nanus	Sky Lupine
Mahonia lomarifolia	Chinese Holy Grape
Magnolia sp.	Magnolia
Malva parviflora	Cheeseweed
Medicago polymorpha	California Bur-Clover
Melaleuca linarifolia	Snow-in-summer
Metrosideros excelsa	Pohutukawa
Muhlenbergia rigens	Deer Grass
Myoporum laetum	Lollypop Tree
Nandina domestica	Heavenly Bamboo
Nassella pulchra	Purple Needlegrass
Nassella tenuissima	Mexican Feather Grass
Nerium oleander	Oleander
Nicotiana glauca	Tree Tobacco
Ophiopogon japonicus	Mondo Grass
Opuntia sp.	Cactus
Oxalis pes-caprae	Bermuda Buttercup
Parkinsonia aculeata	Palo Verde
Parthenocissus tricuspidata	Boston Ivy
Peunisetum setaceum	Purpletop Fountaingrass
Phoenix canariensis	Canary Island Date Palm
Phoenix dactylifera	True Date Palm
Phormium tenax	New Zealand Flax
Phyllostachys aurea	Golden Bamboo
Picris echioides	Bristly Ox-Tongue
Pinus canariensis	Canary Island Pine
Pinus thunbergii	Japanese Black Pine
Piptatherum miliaceum	Smilograss
Pistacia sp.	Pistachio
Pittosporcum tobira	Japanese Cheesewood
Plantago lanceolata	English Plantain
Platanus racemosa	California Sycamore
Poa annua	Annual Bluegrass
Prunus cerasifera	Purple Plum
Quercus agrifolia	Coast Live Oak
Raphanus sativus	Wild Radish
Rhaphiolepis indica	Indian Hawthorn
Ricinus communis	Castor Bean
Robinia pseudoacacia	Black Locust
Rodoendron sp.	Azalea
Rosa sinensis	Red Hibiscus
Rosmarinus officinalis	Rosemary
Salix sp.	Willow
Schinus molle	Peruvian Peppertree

Scientific Name	Common Name
Schinus terebinthifolius	Brazilian Peppertree
Sedum rubrotinctum	Pork and Beans
Senecio vulgaris	Common Groundsel
Silybum marianum	Milk Thistle
Sonchus asper	Sow Thistle
Sonchus oleraceus	Prickly Sow-Thistle
Syzygium paniculatum	Australian Brush Cherry
Taraxacum officinale	Common Dandelion
Tragopogon porrifolius	Purple Salsify
Trifolium gemellum	Spanish clover
Trifolium repens	White Clover
Ulmus parviflora	Chinese Elm
Vinca major	Periwinkle
Washingtonia robusta	Mexican Fan Palm
Yuca sp.	Yuca
Yucca recurvifolia	Pendulous yucca

Wildlife

Scientific Name	Common Name
Birds	
Amazona viridigenalis	Red-Crowned Parrot
Anna calypte	Anna's Hummingbird
Aphelocoma californica	Western Scrub Jay
Carpodacus mexicanus	House Finch
Colaptes auratus	Northern Flicker
Columbia livia	Rock Pigeon
Corvus brachyrhynchos	American Crow
Corvus corax	Common Raven
Euphagus cyanocephalus	Brewers Blackbird
Junco hyemalis	Dark-Eyed Junco
Larus californicus	California Gull
Larus delawarensis	Ring-billed Gull
Mimus polyglottos	Northern Mockingbird
Passer domesticus	House Sparrow
Sayornis nigricans	Black Phoebe
Selasphorus rufus	Rufous Hummingbird
Sturnus vulgaris	European Starling
Turdus migratorius	American Robin
Zenaida macroura	Mourning Dove
Invertebrates	
Danaus plexippus	Monarch Butterfly
Pieris rapae	Cabbage White Butterfly
Mammals	
Felis sylvestris	Feral Housecat
Sciurus griseus	Western Gray Squirrel
Reptiles	
Sceloporus occidentalis	Western Fence Lizard

APPENDIX B SENSITIVE PLANT AND WILDLIFE SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Wildlife				
Amphibians				
Arroyo Toad	*Bufo californicus*	FE/CSC/none	Near washes or intermittent streams with sandy banks, willows, and cottonwoods	**Absent**; insufficient habitat.
Birds				
Tricolored Blackbird	*Agelaius tricolor*	none/CSC/none	This species is endemic to the central and coastal valleys of California. They are highly gregarious, forming large flocks in both breeding and non-breeding seasons. Nests are built near or over water, and occasionally in agricultural fields. Recently, tricolored blackbirds have displayed increased tendencies toward nesting in patches of blackberry, willows, mustard, thistles, nettles, and even grasses.	**Absent**; insufficient habitat.
Burrowing Owl	*Athene cunicularia*	none/CSC/none	Burrowing owls are year-long residents in generally flat, open dry grasslands, pastures, deserts, and shrub lands, and in grass, forbs and open shrub stages of pinyon-juniper and ponderosa pine habitats. They use communal ground squirrel and other small mammal burrow colonies for nesting and cover, as well as artificial structures such as roadside embankments, levees, and berms. They prefer open, dry, nearly level grassland or prairie habitat and can exhibit high site fidelity, often reusing burrows year after year.	**Low**; though observed within five-miles of the study area, habitat is of poor quality.
Western Snowy Plover	*Charadrius alexandrinus nivosus*	FT/CSC/none	Sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting. Federal listing applies only to the pacific coastal population.	**Absent**; insufficient habitat.
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	FT/ST/none	Found in association with riparian habitat where willow, cottonwoods, and stinging nettles are dense.	**Absent**; insufficient habitat.
California Black Rail	*Laterallus jamaicensis coturniculus*	none/ST/none	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays.	**Absent**; insufficient habitat.

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Belding's Savannah Sparrow	*Passerculus sandwichensis beldingi*	none/SE/none	Nests in California on and about margins of tidal flats. Inhabits coastal salt marshes, from Santa Barbara south, through San Diego county.	**Absent**; insufficient habitat.
California Brown Pelican	*Pelecanus occidentalis californicus*	FE/SE/none	Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators. Colonial nester on coastal islands just outside the surf line.	**Absent**; insufficient habitat.
Coastal California Gnatcatcher	*Polioptila californica californica*	FT/CSC/none	Obligate, permanent resident of coastal sage scrub below 800m in southern California. Low, coastal sage scrub in arid washes, on mesas, and slopes. Not all areas classified as coastal sage scrub are occupied.	**Absent**; insufficient habitat.
California Least Tern	*Sternula antillarum browni*	FE/SE/none	Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, land fills, or paved areas. Nests along the coast from San Francisco bay south to northern Baja California.	**Absent**; insufficient habitat.
Least Bell's Vireo	*Vireo bellii pusillus*	FE/SE/none	Summer resident of southern California in low riparian; in vicinity of water or in dry river bottoms; below 700m. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, *baccharis*, and mesquite.	**Absent**; insufficient habitat.
Fish				
Southern Steelhead - Southern California Esu	*Oncorhynchus mykiss irideus*	FE/CSC/none	Federal listing refers to populations from Santa Maria River south, to southern extent of range (San Mateo Creek in San Diego county). Southern sycamore alder riparian woodland, thickets of herbaceous understory in many places. Southern steelheads likely have greater physiological tolerances to warmer water and more variable conditions.	**Absent**; insufficient habitat.
Invertebrates				

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Santa Monica Shieldback Katydid	*Aglaothorax longipennis*	none/none/none	Occur nocturnally in chaparral and canyon stream bottom vegetation, in the Santa Monica Mountains of southern California. Inhabit introduced iceplant and native chaparral plants.	**Absent**; insufficient habitat.
Belkin's Dune Tabanid Fly	*Brennania belkini*	none/none/none	Inhabits coastal sand dunes of southern California.	**Absent**; insufficient habitat.
Busck's Gallmoth	*Carolella busckana*	none/none/none	Exact locality not known.	**Low**; though observed within five-miles of the study area, the closest known historical occurrence was recorded in 1938, when available habitat would have varied greatly.
Sandy Beach Tiger Beetle	*Cicindela hirticollis gravida*	none/none/none	Inhabits areas adjacent to non-brackish water along the coast of California, from the San Francisco Bay to northern Mexico.	**Absent**; insufficient habitat.
Tiger Beetle	*Cicindela senilis frosti*	none/none/none	Inhabits marine shoreline, from the central California coast south, to the salt marshes of San Diego. Also found at Lake Elsinore.	**Absent**; insufficient habitat.
Monarch Butterfly	*Danaus plexippus*	none/none/none	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	**Observed**.
Henne's Eucosman Moth	*Eucosma hennei*	none/none/none	Endemic to the El Segundo Dunes. Larvae are stem and root borers of *Phacelia ramosissima*.	**Absent**; insufficient habitat.
El Segundo Blue Butterfly	*Euphilotes battoides allyni*	FE/CSC/none	Restricted to remnant coastal dune habitat in southern California.	**Absent**; insufficient habitat.
Lange's El Segundo Dune Weevil	*Onychobaris langei*	none/none/none	El Segundo Dunes, just west of LAX; the closest known historical occurrence was recorded in 1939.	**Absent**; insufficient habitat.
Wandering (=Saltmarsh) Skipper	*Panoquina errans*	none/none/none	Southern California coastal salt marshes.	**Absent**; insufficient habitat.
Gertsch's Socalchemmis Spider	*Socalchemmis gertschi*	none/none/none	Known from only two localities in Los Angeles county: Brentwood (type locality) and Topanga Canyon.	**Low**; though observed within five-miles of the study area, the closest known historical occurrence was recorded in 1952, when available habitat would have varied greatly.
Dorothy's El Segundo Dune Weevil	*Trigonoscuta dorothea dorothea*	none/none/none	Coastal sand dunes in Los Angeles county.	**Absent**; insufficient habitat.

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Mimic Tryonia (=California Brackishwater Snail)	*Tryonia imitator*	none/none/none	Inhabits coastal lagoons, estuaries and salt marshes, from Sonoma county south, to San Diego county.	**Absent**; insufficient habitat.
Mammals				
Pallid Bat	*Antrozous pallidus*	none/CSC/none	Open, dry habitats with rocky outcrops, cliffs, caverns, and crevices for roosting; most commonly in deserts, grasslands, and shrublands, in addition to woodlands and forest.	**Low**; though observed within one-mile of the study area, suitable habitat is almost non-existent. In addition, this species is extremely intolerant of human disturbance, and the closest known historical occurrence was recorded in 1932, when suitable habitat would have been more abundant.
Western Mastiff Bat	*Eumops perotis californicus*	none/CSC/none	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**Low**; though observed within one-mile of the study area, suitable habitat is almost non-existent (including high buildings). In addition, the closest known historical occurrence was recorded in 1925, when suitable habitat would have been more abundant.
Silver-Haired Bat	*Lasionycteris noctivagans*	none/CSC/none	Primarily a coastal and montane forest dweller, feeding over streams, ponds, and open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	**Low**; the closest known historical occurrence was recorded in 1985. Though observed within one-mile of the study area, suitable habitat is almost non-existent.
Hoary Bat	*Lasiurus cinereus*	none/CSC/none	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Low**; though observed within one-mile of the study area, suitable habitat is almost non-existent. In addition, the closest known historical occurrence was recorded in 1957, when suitable habitat would have been more abundant.
Western Yellow Bat	*Lasiurus xanthinus*	none/none/none	Roosts in trees, particularly palms. Forages over water and among trees. Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	**Low**.
South Coast Marsh Vole	*Microtus californicus stephensi*	none/CSC/none	Tidal marshes in Los Angeles, Orange and southern Ventura counties.	**Absent**; insufficient habitat.

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
San Diego Desert Woodrat	*Neotoma lepida intermedia*	none/CSC/none	Variety of habitats, often in the vicinity of rocky outcrops; prefer moderate to dense canopies.	**Low**.
Pocketed Free-Tailed Bat	*Nyctinomops femorosaccus*	none/CSC/none	Variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Mostly found in rocky areas with high cliffs.	**Absent**; insufficient habitat.
Big Free -Tailed Bat	*Nyctinomops macrotis*	none/CSC/none	Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	**Absent**; insufficient habitat.
Southern Grasshopper Mouse	*Onychomys torridus ramona*	none/CSC/none	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	**Absent**; insufficient habitat.
Pacific Pocket Mouse	*Perognathus longimembris pacificus*	FE/CSC/none	Seems to prefer soils of fine alluvial sands near the ocean, but much remains to be learned. Inhabits the narrow coastal plains from the Mexican border north, to El Segundo, Los Angeles county.	**Absent**; insufficient habitat.
Southern California Saltmarsh Shrew	*Sorex ornatus salicornicus*	none/CSC/none	Coastal marshes in Los Angeles, Orange and Ventura counties.	**Absent**; insufficient habitat.
American Badger	*Taxidea taxus*	none/CSC/none	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats, with friable soils. Need sufficient food, friable soils, and open, uncultivated ground. Prey on burrowing rodents. Digs burrows.	**Low**; though observed within five-miles of the study area, habitat is of poor quality.
Reptiles				
Southwestern Pond Turtle	*Actinemys marmorata pallida*	none/CSC/none	Require basking sites such as partially submerged logs, vegetation mats, or open mud banks. Need suitable nesting sites. Inhabits permanent or nearly permanent bodies of water in many habitat types; below 2,000m.	**Absent**; insufficient habitat.
California Mountain Kingsnake (San Diego population)	*Lampropeltis zonata (pulchra)*	none/CSC/none	Restricted to the San Gabriel and San Jacinto Mountains of southern California.	**Absent**; outside habitat.

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Coast (San Diego) Horned Lizard	*Phrynosoma coronatum (blainvillii population)*	none/CSC/none	Prefers friable, rocky, or shallow sandy soils. Inhabits coastal sage scrub and chaparral, in arid and semi-arid climate conditions.	**Absent**; insufficient habitat.
Plants				
Marsh Sandwort	*Arenaria paludicola*	FE/SE/CNPS 1B	Marshes and swamps. Growing up through dense mats of *typha*, *juncus*, *scirpus*, etc. 10-170m. Blooming May to August.	**Absent**; insufficient habitat.
Braunton's Milk-Vetch	*Astragalus brauntonii*	FE/none/CNPS 1B	Closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland. Recent burns or disturbed areas; in stiff gravelly clay soils overlying granite or limestone. 4-640m. Blooming February to July.	**Absent**; insufficient habitat.
Ventura Marsh Milk-Vetch	*Astragalus pycnostachyus var. lanosissimus*	FE/SE/CNPS 1B	Coastal salt marsh. Within reach of high tide or protected by barrier beaches, more rarely near seeps on sandy bluffs. 1-35m. Blooming July to October.	**Absent**; insufficient habitat.
Coastal Dunes Milk-Vetch	*Astragalus tener var. titi*	FE/SE/CNPS 1B	Coastal bluff scrub and coastal dunes. Moist, sandy depressions of bluffs or dunes along and near the Pacific Ocean; one site on a clay terrace. 1-50m. Blooming March to May.	**Absent**; insufficient habitat.
Parish's Brittlescale	*Atriplex parishii*	none/none/CNPS 1B	Alkali meadows, vernal pools, chenopod scrub, and playas. Usually on drying alkali flats with fine soils. 4-140m. Blooming April to October.	**Absent**; insufficient habitat.
Davidson's Saltscale	*Atriplex serenana var. davidsonii*	none/none/CNPS 1B	Coastal bluff scrub and coastal scrub. Alkaline soil. 3-250m. Blooming April to October.	**Absent**; insufficient habitat.
Nevin's Barberry	*Berberis nevinii*	FE/SE/CNPS 1B	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian scrub, often with sandy or gravelly soil substrates. 295-825m. Blooming March to June.	**Absent**; insufficient habitat and outside elevation.
Round-Leaved Filaree	*California macrophyllum*	none/none/CNPS 1B	Occurs in cismontane woodland and valley and foothill grassland, often with clay soil substrates. 15-1200m. Blooming March to May.	**Absent**; insufficient habitat.

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SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Slender Mariposa Lily	*Calochortus clavatus var. gracilis*	none/none/CNPS 1B	Occurs in chaparral, coastal scrub, and valley and foothill grassland, often with clay soil substrates. 360-1000m. Blooming March to June.	**Absent**; insufficient habitat and outside elevation.
Plummer's Mariposa Lily	*Calochortus plummerae*	none/none/CNPS 1B	Perennial herb; coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest. 90-1610m. Blooming May to July.	**Absent**; insufficient habitat and outside elevation.
Santa Barbara Morning-Glory	*Calystegia sepium ssp. binghamiae*	none/none/CNPS 1A	Coastal marshes. 0-30m. Blooming May to August.	**Absent**; insufficient habitat.
Southern Tarplant	*Centromadia parryi ssp. australis*	none/none/CNPS 1B	Marshes and swamps (margins), valley and foothill grassland, and vernal pools. Also in alkaline soils sometimes with saltgrass; also vernal pools. 0-425m. Blooming July to September.	**Absent**; insufficient habitat.
Orcutt's Pincushion	*Chaenactis glabriuscula var. orcuttiana*	none/none/CNPS 1B	Coastal bluff scrub and coastal dunes. Sandy sites. 3-100m. Blooming January to August.	**Absent**; insufficient habitat.
San Fernando Valley Spineflower	*Chorizanthe parryi var. fernandina*	FC/SE/CNPS 1B	Coastal scrub. Sandy soils. 3-1035m. Blooming April to June.	**Absent**; insufficient habitat.
Salt Marsh Bird's-Beak	*Cordylanthus maritimus ssp. maritimus*	FE/SE/CNPS 1B	Coastal salt marsh, coastal dunes. Limited to the higher zones of the salt marsh habitat. 0-30m. Blooming May to October.	**Absent**; insufficient habitat.
Santa Susana Tarplant	*Deinandra minthornii*	none/none/CNPS 1B	Chaparral and coastal scrub. On sandstone outcrops and crevices, in shrubland. 280-760m. Blooming July to November.	**Absent**; insufficient habitat and outside elevation.
Beach Spectaclepod	*Dithyrea maritima*	none/ST/CNPS 1B	Coastal dunes, coastal scrub. Formerly more widespread in coastal habitats in southern California. Sea shores, on sand dunes, and sandy places near the shore. 3-50m. Blooming March to May.	**Absent**; insufficient habitat.
Slender-Horned Spineflower	*Dodecahema leptoceras*	FE/SE/CNPS 1B	Chaparral and alluvial fan sage scrub. Flood deposited terraces and washes; associates include *encelia*, *dalea*, and *lepidospartum*. 200-760m. Blooming April to June.	**Absent**; insufficient habitat and outside elevation.

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Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Blochman's Dudleya	*Dudleya blochmaniae ssp. blochmaniae*	none/none/CNPS 1B	Coastal scrub, coastal bluff scrub, valley and foothill grassland. Open, rocky slopes; often in shallow clays over serpentine or in rocky areas with little soil. 5-450m. Blooming April to June.	**Absent**; insufficient habitat.
Santa Monica Mountains Dudleya	*Dudleya cymosa ssp. ovatifolia*	FT/none/CNPS 1B	Pebble (pavement) plain, upper montane coniferous forest, pinyon, and juniper woodland. Outcrops of granite or quartzite; rarely limestone. 1270-2600m. Blooming April to June.	**Absent**; insufficient habitat and outside elevation.
Many-Stemmed Dudleya	*Dudleya multicaulis*	none/none/CNPS 1B	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 0-790m. Blooming May to June.	**Absent**; insufficient habitat.
Los Angeles Sunflower	*Helianthus nuttallii ssp. parishii*	none/none/CNPS 1A	Marshes and swamps (coastal salt and freshwater); 5-1675m. Blooming February to October.	**Absent**; insufficient habitat.
Mesa Horkelia	*Horkelia cuneata ssp. puberula*	none/none/CNPS 1B	Chaparral, cismontane woodland, and coastal scrub. Sandy or gravelly sites. 70-810m. Blooming February to July.	**Absent**; insufficient habitat and outside elevation.
Coulter's Goldfields	*Lasthenia glabrata ssp. coulteri*	none/none/CNPS 1B	Coastal salt marshes, playas, valley and foothill grassland, and vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1400m. Blooming April to June.	**Absent**; insufficient habitat.
Davidson's Bush Mallow	*Malacothamnus davidsonii*	none/none/CNPS 1B	Coastal scrub, riparian woodland, and chaparral. Sandy washes. 180-855m. Blooming June to January.	**Absent**; insufficient habitat and outside elevation.
Mud Nama	*Nama stenocarpum*	none/none/CNPS 2	Marshes and swamps. Lake shores, river banks, intermittently wet areas. 5-500m. Blooming March to May.	**Absent**; insufficient habitat.
Spreading Navarretia	*Navarretia fossalis*	FT/none/CNPS 1B	Vernal pools, chenopod scrub, marshes and swamps, and playas. San Diego hardpan & San Diego claypan vernal pools; in swales, often surrounded by other habitat types. 30-1300m. Blooming April to June.	**Absent**; insufficient habitat.
Prostrate Navarretia	*Navarretia prostrata*	none/none/CNPS 1B	Coastal scrub, valley and foothill grassland, and vernal pools. Alkaline soils in grassland, or in vernal pools. 15-700m. Blooming April to May.	**Absent**; insufficient habitat.
California Orcutt Grass	*Orcuttia californica*	FE/SE/CNPS 1B	Vernal pools. 15-660m. Blooming April to August.	**Absent**; insufficient habitat.

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Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]
Brand's Phacelia	*Phacelia stellaris*	FC/none/CNPS 1B	Occurs in open sandy places in coastal dune and coastal sage scrub habitats. 0-400m. Blooming March to June.	**Absent**; insufficient habitat.
Ballona Cinquefoil	*Potentilla multijuga*	none/none/CNPS 1A	Meadows and seeps. Brackish meadows. 0-2m. Blooming June to August.	**Absent**; insufficient habitat.
Salt Spring Checkerbloom	*Sidalcea neomexicana*	none/none/CNPS 2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, and Mojavean desert scrub. Alkali springs and marshes. 0-1500m. Blooming March to June.	**Absent**; insufficient habitat.
San Bernardino Aster	*Symphyotrichum defoliatum*	none/none/CNPS 1B	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grassland. Vernally mesic grassland or near ditches, streams, and springs. 2-2040m. Blooming July to November.	**Absent**; insufficient habitat.
Greata's Aster	*Symphyotrichum greatae*	none/none/CNPS 1B	Found in broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodland habitat. 300-2010m. Blooming June to October.	**Absent**; insufficient habitat and outside elevation.
Vegetation Communities				
California Walnut Woodland	n/a	none/none/none	n/a	**Absent**.
Riversidian Alluvial Fan Sage Scrub	n/a	none/none/none	n/a	**Absent**.
Southern Coast Live Oak Riparian Forest	n/a	none/none/none	n/a	**Absent**.
Southern Coastal Salt Marsh	n/a	none/none/none	n/a	**Absent**.
Southern Cottonwood Willow Riparian Forest	n/a	none/none/none	n/a	**Absent**.
Southern Dune Scrub	n/a	none/none/none	n/a	**Absent**.
Southern Sycamore Alder Riparian Woodland	n/a	none/none/none	n/a	**Absent**.

Appendix B

SENSITIVE PLANT AND WILDLIFE SPECIES[1] POTENTIALLY OCCURRING WITHIN THE STUDY AREA

Common Name	Scientific Name	Status[2] Fed/CA/other	Habitat and Seasonal Distribution in California[3]	Likelihood of Occurrence Within the Study Area[4]

NOTES:

1. Sensitive Plant and Wildlife Species: Plant and Wildlife that were included in this table have a ranking of G3/S3 or CNPS 2.3, or higher and were either observed within the study area by a PBS&J biologist, or contained within the query of the CNPS Inventory of Rare and Endangered Plants, USFWS Endangered Species List, or CNDDB query.

2. Status:

Federal

FE	Federally listed as Endangered
FT	Federally listed as Threatened
FC	Federal Candidate Species

State

SE	State listed as Endangered
ST	State listed as Threatened
SFP	CDFG designated "Fully Protected" or "Protected" – Permit required for "take."
CSC	CDFG designated "Species of Special Concern"

Other

CNPS:

1A	Plants presumed extinct in California
1B.1	Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2	Plants rare, threatened, or endangered in California and elsewhere, fairly threatened in California
1B.3	Plants rare, threatened, or endangered in California and elsewhere, not very threatened in California
2.1	Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
2.2	Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
2.3	Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California

3. "Habitat and Seasonal Distribution in California" derived from the "General" and "Micro" habitat requirements provided by the CNDDB (October 2007). Blooming periods of plant species provided by the CNPS Inventory of Rare and Endangered Plants (October 2007).

4. "Likelihood of Occurrence Within the Study Area" derived from the formula provided in *Section 3.2*.

APPENDIX C AGENCY COORDINATION

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

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MAR 27 2007

Exposition Metro Line
Construction Authority
Document Control

March 26, 2007

Mr. Joel Sandberg
Exposition Metro Line Construction Authority
707 Wilshire Boulevard, Suite 3400
Los Angeles, CA 90017

Notice of Preparation of a Draft Environmental Impact Report for Exposition Corridor Light Rail Transit Project SCH # 2007021109, Los Angeles County

Dear Mr. Sandberg:

The Department of Fish and Game (Department) has reviewed the above-referenced Notice of Preparation (NOP), relative to impacts to biological resources. The proposed project consists of the Phase 2 Construction for the Exposition Corridor Light Rail Transit Project including two alignment options and project alternatives that would run from the Venice-Robertson Station in Culver City to a planned end-of-the-line station near 5th Street and Colorado Boulevard in Santa Monica.

To enable Department staff to adequately review and comment on the proposed project we recommend the following information, where applicable, be included in the Draft Environmental Impact Report:

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats.

   a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities.

   b. A complete, recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.

   c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA

Guidelines, Section 15380).

d. The Department's Wildlife Habitat Data Analysis Branch in Sacramento should be contacted at (916) 322-2493 to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs) or Environmentally Sensitive Habitats (ESHs) or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

a. CEQA Guidelines, Section 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic and outdoor artificial lighting.

c. A cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. Impacts to migratory wildlife affected by the project should be fully evaluated including proposals to removal/disturb native and ornamental landscaping and other nesting habitat for native birds. Impact evaluation may also include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.

e. Impacts to all habitats from City or County required Fuel Modification Zones (FMZ). Areas slated as mitigation for loss of habitat shall not occur within the FMZ.

f. Proposed project activities (including disturbances to nesting habitat) should take place outside of the breeding bird season (February 1- September 1) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot avoid the breeding bird season, nest surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends minimum 500-foot buffer for all active raptor nests).

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, Joshua tree woodlands, etc. should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

   a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed with offsite mitigation locations clearly identified.

   b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts.

   c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

   a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

   b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The project traverses a linear distance of some magnitude and may involve crossing various drainage features along the project construction route. The Department requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources. The Department's issuance of a SAA may be a project that is subject to CEQA. To facilitate our issuance of the Agreement when CEQA applies, the Department as a responsible agency under CEQA may consider the local jurisdiction's (lead agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of

6.

the Agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

Thank you for this opportunity to provide comment. Please contact Mr. Scott Harris, Wildlife Biologist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

Terri Dickerson
Senior Environmental Scientist

cc: Ms. Terri Dickerson, Liguna Niguel
Mr. Scott Harris, Pasadena
Ms. Jamie Jackson, Pasadena
HCP-Chron
Department of Fish and Game

State Clearinghouse, Sacramento

SPH:sph

Exposition Corridor Light Rail Transit Project/2007 NOP

TELEPHONE LOG

PROJECT: Expo Phase II
PROJECT #: D21316.00

DATE	*USER*	*T/C WITH*	*COMMENT*
11/11/07 4:05 p.m.	Erik W. Hansen	Ms. Christine Medak USFWS Carlsbad office	Not there, left detailed message of project and request for consultation.

TELEPHONE LOG

PROJECT: Expo Phase II
PROJECT #: D21316.00

DATE	*USER*	*T/C WITH*	*COMMENT*
11/11/07 4:00 p.m.	Erik W. Hansen	Mr. Scott Harris CDFG Pasadena office	Not there, left detailed message of project and request for consultation.

TELEPHONE LOG

PROJECT: Expo Phase II
PROJECT #: D21316.00

DATE	*USER*	*T/C WITH*	*COMMENT*
1/24/08 11:35a.m.	Erik W. Hansen	Mr. Walter Warriner City of Santa Monica Urban Forrester	Received consultation of removing trees within the City of Santa Monica.

TELEPHONE LOG

PROJECT: Exposition Light Rail; Phase II
PROJECT #: D2131600

DATE	*USER*	*T/C WITH*	*COMMENT*
7/17/08 4:45pm	Erik W. Hansen	Scott Harris CDFG Pasadena, CA	Mr. Scott Harris stated that he would not consider individual monarch butterflies a sensitive resource (no federal or State listing, not a species of special concern, CNDDB ranking of G4S3). However, he did state that he would consider known winter roosting habitat a sensitive resource. Mr. Harris stated that the CDFG does not have local population or habitat numbers for the monarch butterfly, which is something he has looked for previously. He stated that even if I pulled the CNDDB occurrences of roosting locations, they wouldn't mean much to him in determining numbers of individuals or known roosting habitat, as occurrences are only recorded as development occurs, and is not a true count. He stated that the best source for this information is a lepidopterist familiar with the local butterfly communities, or local butterfly groups. Mr. Harris stated that if the actual project is years off, a long term survey of the project site for utilized roosting habitat would be optimal. He also stated that in similar situations, purchase of off-site habitat or enhancement of on/off-site habitat mitigated for the loss of known roosting habitat.