

East San Fernando Valley Transit Corridor

Final Environmental Impact Statement/ Final Environmental Impact Report

Addendum to the ECOSYSTEM/BIOLOGICAL RESOURCE IMPACTS REPORT December 2019



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Memorandum

Date: June 26, 2020

Subject: Addendum to the Ecosystem/Biological Resource Impacts Report for East San Fernando Valley Transit Corridor

Project Description:

The Federal Transit Administration (FTA) and Los Angeles County Metropolitan Transportation Authority (Metro) have initiated a Final Environmental Impact Statement (FEIS)/Final Environmental Impact Report (FEIR) for the East San Fernando Valley Transit Corridor Project (Project). The FEIS/FEIR is being prepared with the FTA as the Lead Agency under the National Environmental Policy Act (NEPA) and Metro as the Lead Agency under the California Environmental Quality Act (CEQA).

In response to comments received on the Draft EIS/EIR (DEIS/DEIR), on June 28, 2018 the Metro Board of Directors formally identified a modified version of Alternative 4 (identified as “Alternative 4 Modified: At-Grade LRT” in the FEIS/FEIR) as the Locally Preferred Alternative (LPA). Factors that were considered by Metro in identifying Alternative 4 Modified: At-Grade LRT as the LPA include: the greater capacity of LRT compared to the BRT alternatives, the LPA could be constructed in less time and at reduced cost compared to the DEIS/DEIR Alternative 4, fewer construction impacts compared to DEIS/DEIR Alternative 4, and strong community support for a rail alternative. Additionally, Metro determined the LPA best fulfilled the project’s purpose and need.

The LPA consists of a 9.2-mile, at- grade LRT with 14 stations. Under the LPA, the LRT would be powered by electrified overhead lines and would travel 2.5 miles along the Metro-owned right-of-way used by the Antelope Valley Metrolink line and Union Pacific Railroad from the Sylmar/San Fernando Metrolink Station south to Van Nuys Boulevard. As the LPA approaches Van Nuys Boulevard it would transition to and operate in the median of Van Nuys Boulevard for approximately 6.7 miles south to the Van Nuys Metro Orange Line Station. The 9.2-mile route of the LPA is illustrated in Figure 2-1 of the FEIS/FEIR. Additional details regarding the LPA’s characteristics, components, and facilities are discussed within Section 2.2 of the FEIS/FEIR.

Methodology:

A review of the above-referenced project has been conducted in order to identify any additional potential impacts to safety and security in the project study area as a result of the LPA. The project review was done according to CEQA/NEPA guidelines, as well as the most current FTA and Metro guidelines and policies.

Result:

ICF has evaluated the impacts of the LPA and has determined they are consistent with the findings in the Ecosystem/Biological Resource Impacts Report prepared for the DEIS/DEIR. Please refer to Section 4.12 Ecosystems and Biological Resources of the FEIS/FEIR for an updated discussion of existing conditions and LPA impacts, as well as proposed mitigation measures. Please also see section 4.12.3.3, for the NEPA and CEQA impact findings.

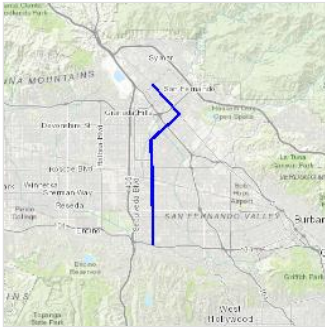
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Los Angeles County, California



Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📠 (760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

<http://www.fws.gov/carlsbad/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
Coastal California Gnatcatcher <i>Polioptila californica californica</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

Fishes

NAME	STATUS
Santa Ana Sucker <i>Catostomus santaanae</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3785	Threatened

Flowering Plants

NAME	STATUS
Braunton's Milk-vetch <i>Astragalus brauntonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5674	Endangered

Gambel's Watercress *Rorippa gambellii* Endangered
No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/4201>

Nevin's Barberry *Berberis nevinii* Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
<https://ecos.fws.gov/ecp/species/8025>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USEWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
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Allen's Hummingbird *Selasphorus sasin* Breeds Feb 1 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/9637>

Bald Eagle *Haliaeetus leucocephalus* Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
<https://ecos.fws.gov/ecp/species/1626>

Black Skimmer *Rynchops niger* Breeds May 20 to Sep 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
<https://ecos.fws.gov/ecp/species/5234>

Burrowing Owl <i>Athene cunicularia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737	Breeds Mar 15 to Aug 31
California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20

Tricolored Blackbird *Agelaius tricolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <https://ecos.fws.gov/ecp/species/3910>

Breeds Mar 15 to Aug 10

Whimbrel *Numenius phaeopus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <https://ecos.fws.gov/ecp/species/9483>

Breeds elsewhere

Willet *Tringa semipalmata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Wrentit *Chamaea fasciata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

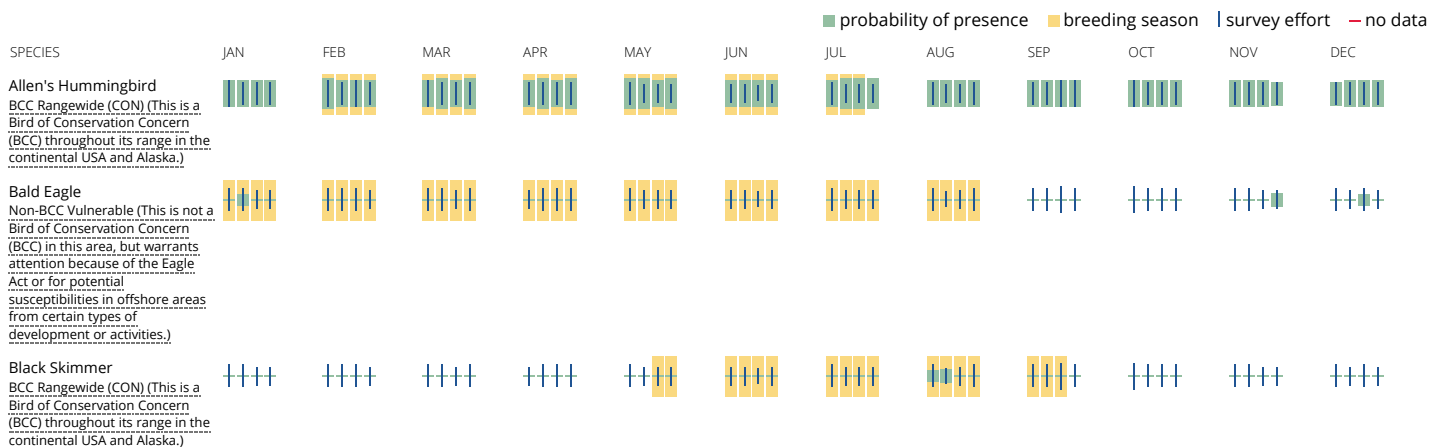
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



<p>Tricolored Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	
<p>Whimbrel BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	
<p>Willet BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	
<p>Wrentit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R2UBHr](#)

[R4SBAr](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



Metro®

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Acronyms and Abbreviations

AA	Alternatives Analysis
ADA	Americans with Disabilities Act
BMP	best management practices
BRT	Bus Rapid Transit
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNPS	California Native Plant Society
CWA	Clean Water Act
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
ESA	Endangered Species Act
FTA	Federal Transit Administration
LADOT	Los Angeles Department of Transportation
LRT	light rail transit
LRTP	Long-Range Transportation Plan
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
MSF	maintenance and storage facility
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OCS	overhead contact system
OPR	Office of Planning and Research
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
TNW	traditionally navigable water
TPSS	traction power substation
TSM	Transportation Systems Management
U.S.C.	United States Code

USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WoS	Waters of the State
WoUS	Waters of the United States

1.1 Study Background

What Is the East San Fernando Valley Transit Corridor?

The Federal Transit Administration (FTA) and Los Angeles County Metropolitan Transportation Authority (Metro) have initiated a Draft Environmental Impact Statement (DEIS)/Environmental Impact Report (DEIR) for the East San Fernando Valley Transit Corridor Project (Project). The DEIS/DEIR is being prepared with the FTA as the Lead Agency under the National Environmental Policy Act (NEPA) and Metro as the Lead Agency under the California Environmental Quality Act (CEQA).

The DEIS/DEIR and related engineering are being undertaken by Metro, in close coordination with the Cities of Los Angeles and San Fernando. The DEIS/DEIR will be a combined document complying with the most recent state and federal environmental laws. The Project's public/community outreach component is being undertaken as an integrated parallel effort to the DEIS/DEIR.

Prior to the initiation of the DEIS/DEIR, an Alternatives Analysis (AA) was received by the Metro Board in January 2013 to study the East San Fernando Valley Transit Corridor in order to define, screen, and recommend alternatives for future study.

This study enabled Metro, the City of Los Angeles, and the City of San Fernando to evaluate a range of new public transit service alternatives that can accommodate future population growth and transit demand, while being compatible with existing land uses and future development opportunities. The study considered the Sepulveda Pass Corridor, which is another Measure R project, and the proposed California High Speed Rail Project. Both of these projects may be directly served by a future transit project in the project study area. The Sepulveda Pass Corridor could eventually link the West Los Angeles area to the east San Fernando Valley and the California High Speed Rail Project via the Project corridor. As part of the January 2013 Alternatives Analysis, most of Sepulveda Boulevard was eliminated as an alignment option, as well as the alignment extending to Lakeview Terrace. As a result of the Alternatives Analysis, modal recommendations were for Bus Rapid Transit (BRT) and Light Rail Transit (LRT).

As a result of the alternatives screening process and feedback received during the public scoping period, a curb-running BRT, median-running BRT, median-running Low-Floor LR/Tram, and a median-running LRT, were identified as the four build alternatives, along with the Transportation Systems Management (TSM) and No-Build Alternatives to be carried forward for analysis in this DEIS/DEIR.

1.1.1 Study Area

Where Is the Study Area Located?

The East San Fernando Valley Transit Corridor Project study area is located in the San Fernando Valley in the County of Los Angeles. Generally, the project study area extends from the City of San Fernando and the Sylmar/San Fernando Metrolink Station in the north to the Van Nuys Metro

Orange Line Station within the City of Los Angeles in the south. However, the project study area used for the environmental issue described in this report could vary from this general project study area, depending on the needs of the analysis. For the purposes of the analysis contained in this report, the biological resources project study area coincides with the general project study area.

The eastern San Fernando Valley includes the two major north-south arterial roadways of Sepulveda and Van Nuys Boulevards, spanning approximately 10 to 12 miles and the major north/west arterial roadway of San Fernando Road.

Several freeways traverse or border the eastern San Fernando Valley. These include the Ventura Freeway US-101, the San Diego Freeway I-405, the Golden State Freeway I-5, the Ronald Reagan Freeway SR-118, and the Foothill Freeway I-210. The Hollywood Freeway SR-170 is located east of the project study area. In addition to Metro Local and Metro Rapid bus service, the Metro Orange Line (Orange Line) Bus Rapid Transit service, the Metrolink Ventura Line commuter rail service, Amtrak inter-city rail service, and the Metrolink Antelope Valley Line commuter rail service are the major transit corridors that provide interregional trips in the project study area.

Land uses in the project study area include neighborhood and regional commercial land uses, as well as government and residential land uses. Specifically, land uses in the project study area include government services at the Van Nuys Civic Center, retail shopping along the project corridor, and medium- to high-density residential uses throughout the project study area. Notable land uses in the eastern San Fernando Valley include: The Village at Sherman Oaks, Panorama Mall, Whiteman Airport, Van Nuys Airport, Mission Community Hospital, Kaiser Permanente Hospital, Van Nuys Auto Row, and several schools, youth centers, and recreational centers.

1.1.2 Alternatives Considered

What Alternatives Are under Consideration?

The following six alternatives, including four build alternatives, a TSM Alternative, and the No-Build Alternative, are being evaluated as part of this study:

- No-Build Alternative
- Transportation Systems Management (TSM) Alternative
- Build Alternative 1 – Curb-Running Bus Rapid Transit (BRT) Alternative
- Build Alternative 2 – Median-Running BRT Alternative
- Build Alternative 3 – Low-Floor LRT/Tram Alternative
- Build Alternative 4 – Light Rail Transit (LRT) Alternative

All build alternatives would operate over 9.2 miles, either in a dedicated bus lane or guideway (6.7 miles) and/or in mixed-flow traffic lanes (2.5 miles), from the Sylmar/San Fernando Metrolink station to the north to the Van Nuys Metro Orange Line station to the south, with the exception of Build Alternative 4 which includes a 2.5-mile segment within Metro-owned railroad right-of-way adjacent to San Fernando Road and Truman Street and a 2.5-mile underground segment beneath portions of Panorama City and Van Nuys.

1.1.2.1 No-Build Alternative

The No-Build Alternative represents projected conditions in 2040 without implementation of the project. No new transportation infrastructure would be built within the project study area, aside from projects that are currently under construction or funded for construction and operation by 2040. This

alternative would include highway and transit projects funded by Measure R and specified in the current constrained element of the Metro 2009 Long-Range Transportation Plan (LRTP) and the 2012 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The No-Build Alternative considers the following existing transportation infrastructure and future planned projects:

- Existing Freeways – Interstate 5, and Interstate 105, State Route 118, and U.S. 101;
- Existing Transitway – Metro Orange Line;
- Existing Bus Service – Metro Rapid and Metro Local Shuttle;
- Los Angeles Department of Transportation Commuter Express, and DASH;
- Existing and Planned Bicycle Projects – Bicycle facilities on Van Nuys Boulevard and connecting east/west facilities; and
- Other Planned Projects – Various freeway and arterial roadway upgrades, expansions to the Metro Rapid Bus system, upgrades to the Metrolink system and the proposed California High Speed Rail project.

This alternative establishes a baseline for comparison to other alternatives in terms of potential environmental effects, including adverse and beneficial environmental effects.

1.1.2.2 TSM Alternative

The TSM Alternative enhances the No-Build Alternative and emphasizes transportation systems upgrades, which may include relatively low-cost transit service improvements. It represents efficient and feasible improvements to transit service, such as increased bus frequencies and minor modifications to the roadway network. Additional TSM Alternative transit improvements that may be considered include, but are not limited to, traffic signalization improvements, bus stop amenities/improvements, and bus schedule restructuring (Figure 1-1).

The TSM Alternative considers the existing bus network, enhanced operating hours, and increased bus frequencies for Rapid Line 761 and Local Line 233. Under this alternative, the Metro Rapid Line 761 and Metro Local Line 233 bus routes would retain existing stop locations. This alternative would add 20 additional buses to the existing Metro Local 233 and Metro Rapid 761 bus routes. These buses would be similar to existing Metro 60-foot articulated buses, and each bus would have the capacity to serve up to 75 passengers (57 seats x 1.30 passenger loading standard). Buses would be equipped with transit signal priority equipment to allow for improved operations and on-time performance.

The existing Metro Division 15 maintenance and storage facility (MSF) located in Sun Valley would be able to accommodate the 20 additional buses with the implementation of the TSM Alternative. Operational changes would include reduced headway (elapsed time between buses) times for Metro Rapid Line 761 and Metro Local Line 233, as follows:

- Metro Rapid Line 761 would operate with headways reduced from 10 minutes to 8 minutes during peak hours (7 a.m. to 9 a.m. and 4 p.m. to 7 p.m. on weekdays) and from 17.5 minutes to 12 minutes during off-peak hours.
- Metro Local Line 233 would operate with headways reduced from 12 minutes to 8 minutes during peak hours and from 20 minutes to 16 minutes during off-peak hours.

Figure 1-1: TSM Alternative



Source: STV, 2014.

1.1.2.3 Build Alternative 1 – Curb-Running BRT Alternative

Under the Curb-Running BRT Alternative, the BRT guideway would incorporate 6.7 miles of existing curb lanes (i.e., lanes closest to the curb) along Van Nuys Boulevard between San Fernando Road and the Metro Orange Line. This alternative would be similar to the Metro Wilshire BRT project and would operate similarly. The lanes would be curb-running bus lanes for Metro Rapid Line 761 and Metro Local Line 233, and for other transit lines that operate on short segments of Van Nuys Boulevard. In addition, this alternative would incorporate 2.5 miles of mixed-flow lanes, where buses would operate in the curb lane along San Fernando Road and Truman Street between Van Nuys Boulevard and Hubbard Avenue for Metro Line 761. Metro Line 233 would continue north on Van Nuys Boulevard to Lakeview Terrace. These improvements would result in an improved Metro Rapid Line 761 (hereafter referred to as 761X) and an improved Metro Local Line 233 (hereafter referred to as 233X). The route of the Curb-Running BRT Alternative is illustrated in Figure 1-2.

From the Sylmar/San Fernando Metrolink station:

- Metro Rapid Line 761X would operate within roadway travel lanes on Truman Street and San Fernando Road.
- At Van Nuys Boulevard, Metro Rapid Line 761X would turn southwest and travel south within a curb-running dedicated bus lane along Van Nuys Boulevard.
- The alternative would continue to be curb running along Van Nuys Boulevard until reaching the Metro Orange Line Van Nuys station where Metro Rapid Line 761X service would be integrated into mixed-flow traffic.
- Metro Line 761X would then continue south to Westwood as under existing conditions, though it should be noted that in December 2014 the Metro Rapid Line 761 will be re-routed to travel from Van Nuys Boulevard to Ventura Boulevard, and then to Reseda Boulevard, while a new Metro Rapid Line 788 would travel from Van Nuys Boulevard through the Sepulveda Pass to Westwood as part of a Metro demonstration project.

Metro Local Line 233X would operate similar to how it currently operates between the intersections of Van Nuys and Glenoaks Boulevards to the north and Van Nuys and Ventura Boulevards to the south. However, Metro Local Line 233X would operate with improvements over existing service because it would utilize the BRT guideway where its route overlaps with the guideway along Van Nuys Boulevard.

Transit service would not be confined to only the dedicated curb lanes. Buses would still have the option to operate within the remaining mixed-flow lanes to bypass right-turning vehicles, a bicyclist, or another bus at a bus stop.

The Curb-Running BRT Alternative would operate in dedicated bus lanes, sharing the lanes with bicycles and right turning vehicles. However, on San Fernando Road and Truman Street, no dedicated bus lanes would be provided. The Curb-Running BRT Alternative would include 18 bus stops.

Figure 1-2: Build Alternative 1 – Curb-Running BRT Alternative

East San Fernando Valley Transit Corridor Curb Running Bus Rapid Transit (BRT)



Source: Source: Metro and KOA, 2014.

1.1.2.4 **Build Alternative 2 – Median-Running BRT Alternative**

The Median-Running BRT Alternative consists of approximately 6.7 miles of dedicated median-running bus lanes between San Fernando Road and the Metro Orange Line, and would have operational standards similar to the Metro Orange Line. The remaining 2.5 miles would operate in mixed-flow traffic between the Sylmar/San Fernando Metrolink Station and San Fernando Road/Van Nuys Boulevard. The Median-Running BRT Alternative is illustrated in Figure 1-3.

Similar to the Curb-Running BRT Alternative, the Median-Running BRT (Metro Rapid Line 761X) would operate as follows from the Sylmar/San Fernando Metrolink station:

- Metro Rapid Line 761X would operate within mixed-flow lanes on Truman Street and San Fernando Road.
- At Van Nuys Boulevard, the route would turn southwest and travel south within the median of Van Nuys Boulevard in a new dedicated guideway.
- Upon reaching the Van Nuys Metro Orange Line Station, the dedicated guideway would end and the Rapid Line 761X service would then be integrated into mixed-flow traffic.
- The route would then continue south to Westwood, similar to the existing route. Similar to Build Alternative 1, it should be noted that in December 2014 the Metro Rapid Line 761 will be re-routed to travel from Van Nuys Boulevard to Ventura Boulevard, and then to Reseda Boulevard, while a new Metro Rapid Line 788 would travel from Van Nuys Boulevard through the Sepulveda Pass to Westwood as part of a Metro demonstration project.

Metro Local Line 233 would operate similar to existing conditions between the intersections of Van Nuys and Glenoaks Boulevards to the north and Van Nuys and Ventura Boulevards to the south. Rapid Bus stops that currently serve the 794 and 734 lines on the northern part of the alignment along Truman Street and San Fernando Road would be upgraded and have design enhancements that would be Americans with Disabilities Act (ADA) compliant. These stops would also serve the redirected 761X line:

1. Sylmar/San Fernando Metrolink Station
2. Hubbard Station
3. Maclay Station
4. Paxton Station
5. Van Nuys/San Fernando Station

Along the Van Nuys Boulevard segment, bus stop platforms would be constructed in the median. Seventeen new median bus stops would be included.

Figure 1-3: Build Alternative 2 – Median-Running BRT Alternative

East San Fernando Valley Transit Corridor Median Running Bus Rapid Transit (BRT)



Source: Source: Metro and KOA, 2014.

1.1.2.5 **Build Alternative 3 – Low-Floor LRT/Tram Alternative**

The Low-Floor LRT/Tram Alternative would operate along a 9.2-mile route, from the Sylmar/San Fernando Metrolink station to the north to the Van Nuys Metro Orange Line station to the south. The Low-Floor LRT/Tram Alternative would operate in a median dedicated guideway for approximately 6.7 miles along Van Nuys Boulevard between San Fernando Road and the Van Nuys Metro Orange Line station. The Low-Floor LRT/Tram alternative would operate in mixed-flow traffic lanes on San Fernando Road between the intersection of San Fernando Road/Van Nuys Boulevard and just north of Wolfskill Street. Between Wolfskill Street and the Sylmar/San Fernando Metrolink station, the Low-Floor LRT/Tram would operate in a median dedicated guideway. It would include 28 stations. The route of the Low-Floor LRT/Tram Alternative is illustrated in Figure 1-4.

The Low-Floor LRT/Tram Alternative would operate along the following route:

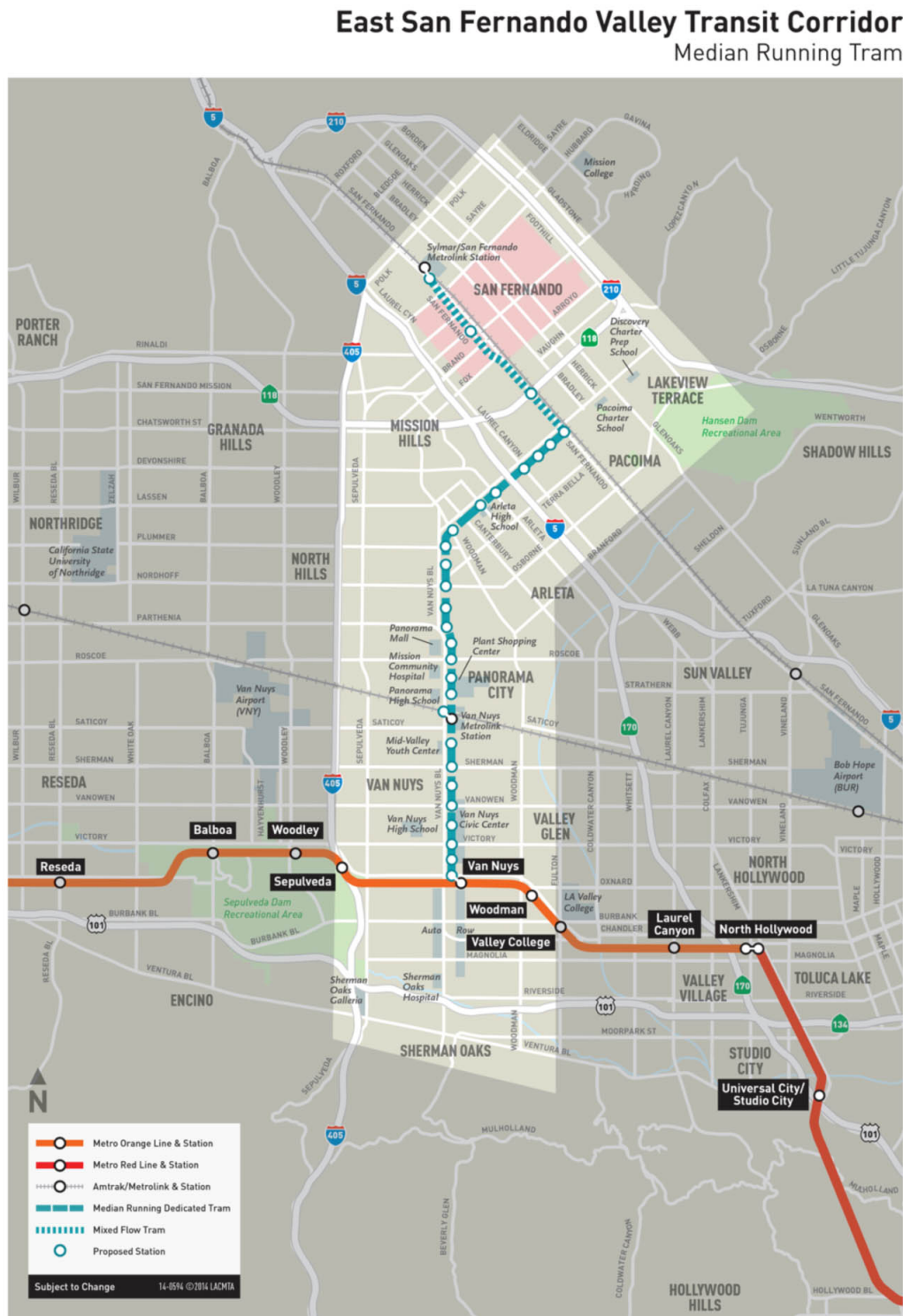
- From the Sylmar/San Fernando Metrolink station, the Low-Floor LRT/Tram would operate within a median dedicated guideway on San Fernando Road.
- At Wolfskill Street, the Low-Floor LRT/Tram would operate within mixed-flow travel lanes on San Fernando Road to Van Nuys Boulevard.
- At Van Nuys Boulevard, the Low-Floor LRT/Tram would turn southwest and travel south in a new dedicated guideway within the median of Van Nuys Boulevard.
- The Low-Floor LRT/Tram would continue to operate in the median along Van Nuys Boulevard until reaching its terminus at the Van Nuys Metro Orange Line Station.

Based on Metro's Operations Plan for the East San Fernando Valley Transit Corridor Project, the Low-Floor LRT/Tram Alternative would assume a similar travel speed as the Median-Running BRT Alternative, with speed improvements of 18 percent during peak hours/peak direction and 15 percent during off-peak hours.

The Low-Floor LRT/Tram Alternative would operate using Low-Floor articulated vehicles that would be electrically powered by overhead wires. This alternative would include supporting facilities, such as an overhead contact system (OCS), traction power substations (TPSS), signaling, and a maintenance and storage facility (MSF).

Because the Low-Floor LRT/Tram Alternative would fulfill the current functions of the existing Metro Rapid Line 761 and Metro Local Line 233, these bus routes would be modified to maintain service only to areas outside of the project corridor.

Figure 1-4: Build Alternative 3 – Low-Floor LRT/Tram Alternative



Source: Metro and KOA, 2014.

1.1.2.6 Build Alternative 4 – LRT Alternative

Similar to the Low-Floor LRT/Tram Alternative, the LRT Alternative would be powered by overhead electrical wires (Figure 1-5). Under Build Alternative 4, the LRT would travel in a dedicated guideway from the Sylmar/San Fernando Metrolink station along San Fernando Road south to Van Nuys Boulevard, from San Fernando Road to the Van Nuys Metro Orange Line Station, over a distance of approximately 9.2 miles. The LRT Alternative includes a segment in exclusive right-of-way through the Antelope Valley Metrolink railroad corridor, a segment with semi-exclusive right-of-way in the middle of Van Nuys Boulevard, and an underground segment beneath Van Nuys Boulevard from just north of Parthenia Street to Hart Street.

The LRT Alternative would be similar to other street-running LRT lines that currently operate in the Los Angeles area, such as the Metro Blue Line, Metro Gold Line, and Metro Exposition Line. The LRT would travel along the median for most of the route, with a subway of approximately 2.5 miles in length between Vanowen Street and Nordhoff Street. On the surface-running segment, the LRT Alternative would operate at prevailing traffic speeds and would be controlled by standard traffic signals.

Stations would be constructed at approximately 1-mile intervals along the entire route. There would be 14 stations, three of which would be underground near Sherman Way, the Van Nuys Metrolink station, and Roscoe Boulevard. Entry to the three underground stations would be provided from an entry plaza and portal. The entry portals would provide access to stairs, escalators, and elevators leading to an underground LRT station mezzanine level, which, in turn, would connect to additional stairs, escalators, and elevators to the underground LRT station platforms.

Similar to the Low-Floor LRT/Tram Alternative, the LRT Alternative would require a number of additional elements to support vehicle operations, including an OCS, TPSS, communications and signaling buildings, and an MSF.

Stations for the LRT Alternative would be constructed at various intervals along the entire route. There are portions of the route where stations are closer together and other portions where they are located farther apart. Twenty-eight stations are proposed under the LRT Alternative. The 28 proposed LRT stations would be ADA compliant.

Figure 1-5: Build Alternative 4 – LRT Alternative

East San Fernando Valley Transit Corridor Median Running Light Rail Transit (LRT)



Source: Source: Metro and KOA, 2014.

2.1 Regulatory Framework

2.1.1 Federal Regulations

The federal laws listed below were considered during evaluation of the biological resources in the biological resources study area.

2.1.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (ESA) (16 United States Code [U.S.C.], 1530 et seq.) protects fish and wildlife species and their habitats that have been identified by the United States Fish and Wildlife Service (USFWS) as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range; threatened refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

USFWS regulates the “Take” (i.e., killing, harassing, or habitat destruction) of federally listed species through Section 9 of the ESA. Take of listed species can be authorized through either the ESA Section 7 consultation process for actions by federal agencies or the ESA Section 10 permit process for actions by nonfederal agencies.

2.1.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) enacts the provisions of treaties between the United States, Great Britain, Mexico, Canada and Japan; and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 U.S.C. 703; 50 Code of Federal Regulations (CFR) 10 21). Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. Examples of permitted actions that do not violate the MBTA are the possession of a hunting license to pursue specific game birds, legitimate research activities, display in zoological gardens, bird-banding, and other similar activities. USFWS is responsible for overseeing compliance with the MBTA, and the U.S. Department of Agriculture’s Animal Damage Control Officer makes recommendations on related animal protection issues.

The project’s biological resources study area supports habitat for the presence of nesting birds and migratory birds protected under the MBTA.

2.1.1.3 Federal Noxious Weed Act

Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a Federal program to control the spread of noxious weeds. Noxious weeds are legally defined as “any plant designated by a Federal, State or county government as injurious to public health, agriculture,

recreation, wildlife or property” (Sheley, R.J., Petroff, M., Borman 1999).¹ The Act states, “the Secretary of Agriculture was given the authority to designate plants as noxious weeds by regulation, and the movement of all such weeds in interstate or foreign commerce was prohibited except under permit. The Secretary was also given authority to inspect, seize and destroy products, and to quarantine areas, if necessary to prevent the spread of such weeds. The Secretary was also authorized to cooperate with other federal, state and local agencies, farmers associations and private individuals in measures to control, eradicate, or prevent or retard the spread of such weeds.”

2.1.1.4 Clean Water Act

The Federal Clean Water Act (CWA) (33 U.S.C. 1251 et seq.) is the primary federal law that protects the quality of the nation’s surface waters when they are traditionally navigable waters, are tributary or adjacent to traditionally navigable waters, or are interstate waters. Waters under the jurisdiction of the CWA are referred to as “waters of the United States.” The U.S. Army Corps of Engineers regulates fill in waters of the United States under Section 404 of the Clean Water Act. Point discharges to waters of the United States are regulated under Section 402 of the Clean Water Act through National Pollutant Discharge Elimination System (NPDES) permits; in California the Regional Water Boards have been delegated the authority to issue NPDES permits. Under Section 401 of the Clean Water Act, state agencies review permits issued by the U.S. Army Corps of Engineers for their effects on water quality. In general, the U.S. Army Corps of Engineers takes jurisdiction over waters that are traditionally navigable, that drain to traditionally navigable water, or that are adjacent or otherwise have a significant nexus to traditionally navigable water.

2.1.1.5 Fish and Wildlife Coordination Act

The USFWS Coordination Act (16 United States Code (U.S.C.) 661-666c) requires consultation with the USFWS and the state agency responsible for wildlife resources whenever a stream or other body of water is proposed to be modified for any purpose whatsoever. The Project is not anticipated to require USFWS coordination related to impacts of rivers, streams or lakes. The alternatives do not cross or otherwise encroach on any sensitive habitat types, such as rivers, streams or lakes.

2.1.2 State Regulations

The state laws and regulations listed below were considered during evaluation of biological resources in the biological resources study area. Note that this is not an exhaustive list of all state laws and regulations that may be considered.

2.1.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Sections 2050–2097) is administered by the California Department of Fish and Wildlife (CDFW)² and prohibits the take of plant and animal species designated by CDFW as either threatened or endangered in the state of California. “Take” in the context of the CESA means to hunt, pursue, kill, or capture a listed species, as well as any other actions that may result in adverse impacts when attempting to take individuals of a listed species.

¹ Sheley, R., J. Petroff, M. Borman. 1999. *Introduction to Biology and Management of Noxious Rangeland Weeds, Corvallis, OR*. Available: http://www.blm.gov/wo/st/en/prog/more/weeds/weed_definition.html. Accessed: June 4, 2014.

² Effective January 2013, the California Department of Fish and Game is called the California Department of Fish and Wildlife.

Sections 2091 and 2081 of the CESA allow CDFW to authorize exceptions to the state's prohibition against take of a listed species. Section 2091 allows state lead agencies that have formally consulted with CDFW to take a listed species, if the take is incidental to carrying out an otherwise lawful project that has been approved under CEQA. Section 2081 allows CDFW to authorize take of a listed species for educational, scientific, or management purposes.

2.1.2.2 California Department of Fish and Wildlife Regulations

Protected Species in the Fish and Game Code

The California Fish and Game Code provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists fully protected amphibians and reptiles and prohibits the take of such reptiles and amphibians except as provided in Sections 2081.7 or 2835. Section 5515 prohibits take of fully protected fish species except as provided in Sections 2081.7 or 2835. Fully protected birds are listed under Section 3511, and fully protected mammals are listed under Section 4700; both of these sections prohibit take except as provided in Sections 2081.7 and 2835. Except for takes related to scientific research, all takes of fully protected species is prohibited.

California Native Plant Protection Act and Natural Community Conservation Planning Act

The California Native Plant Protection Act (Fish and Game Code Sections 1900–1913) and the Natural Community Conservation Planning Act provide guidance on the preservation of plant resources; these two acts underlie the language and intent of Section 15380(d) of the CEQA Guidelines, which says that a species does not have to be listed to be considered endangered, rare, or threatened if the species can be shown to exist in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens or if species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Streambed Alteration Agreements

CDFW has jurisdictional authority over rivers, streams, and lakes under California Fish and Game Code Section 1602. CDFW has the authority to regulate all work under the jurisdiction of California that would: substantially divert, obstruct, or change the natural flow of a river, stream, or lake; substantially change the bed, channel, or bank of a river, stream, or lake; or use material from a streambed.

In practice, CDFW marks its jurisdictional limit at the top of the stream or lake bank or the outer edge of the riparian vegetation, where present, and sometimes extends its jurisdiction to the edge of the 100-year floodplain. Because riparian habitats do not always support wetland hydrology or hydric soils, wetland boundaries, as defined by CWA Section 404, sometimes include only portions of the riparian habitat adjacent to a river, stream, or lake. Therefore, jurisdictional boundaries under Section 1602 may encompass a greater area than those regulated under CWA Section 404.

CDFW enters into a Streambed Alteration Agreement with an applicant and can request conditions to ensure that no net loss of wetland values or acreage will be incurred. The streambed or lakebed alteration agreement is not a permit but, rather, a mutual agreement between CDFW and the applicant.

Bird/Raptor Protections in the Fish and Game Code

Similar to the federal MBTA, Section 3503 of the California Fish and Game Code prohibits take, possession, or destruction of eggs and nests of all birds. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Take or possession of any migratory non-game bird as designated in the MBTA is prohibited under Sections 3513 and 3800. Section 86 of the Fish and Game Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

2.1.2.3 Porter-Cologne Water Quality Control Act of 1969

The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board (SWRCB) and divided the state into nine regional basins, each with a regional water quality control board. The SWRCB is the primary state agency responsible for protecting the quality of the state’s surface- and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. This act is relevant to biological resources that may be affected in state waters because the Water Board regulates discharges, including construction runoff and sediment, into state waters, including waters that may be outside federal jurisdiction under the CWA. See Section 3.9, Jurisdictional Resources, for a description of waters within the project study area.

2.1.3 Local Regulations

2.1.3.1 Los Angeles County General Plan

The County of Los Angeles, through its general plan, established 61 Significant Ecological Areas (SEAs), which represent a wide variety of biological communities within the County. The SEAs function to preserve this variety and to provide a level of protection to the resources within them. These SEAs are living laboratories containing examples of the County’s diverse ecological heritage. SEAs are intended to be preserved in an ecologically viable condition for the purposes of public education, research, and other non-disruptive outdoor uses but do not preclude limited compatible development. The County general plan outlines a process to regulate land uses in these areas and creates an advisory committee of scientists appointed to oversee the regulation of these policies.

A conditional use permit is required for development in SEAs in order to protect resources contained in SEAs from incompatible development, which may result in or have potential for environmental degradation. A biological constraints analysis is required to describe in a general manner the extent, location, and sensitivities of ecological resources found within an SEA. The Tujunga Valley/Hansen Dam SEA is located in northern San Fernando Valley where it is comprised of the Tujunga Valley and wash as well as the Hansen Dam recreation area. From the closest point at Van Nuys Blvd. and San Fernando Rd., the Tujunga Valley/Hansen Dam SEA is located approximately 1.5 miles east of all Project alternatives.

2.1.3.2 City of Los Angeles General Plan

The City of Los Angeles General Plan Conservation Element sets forth objectives and policies to “protect and promote the restoration” of biological resources, including endangered species and habitats.³

³ City of Los Angeles. 2001. *City of Los Angeles General Plan*. Conservation Element.

Section 6: Endangered Species

The endangered species objective is to protect the existing sensitive resources as well and encourage the reestablishment of these sensitive resources to the greatest extent practicable. The City has established 3 policies within the endangered species objective to promote this reestablishment.

- **Policy 1:** “require evaluation, avoidance, and minimization or potential significant impacts, as well as mitigation for unavoidable significant impacts on sensitive animal and plant species and their habitats, and habitat corridors relative to land development activities.”
- **Policy 2:** “continue to administer City-owned and managed properties so as to protect and/or enhance the survival of sensitive plant and animal species to the greatest practical extent.”
- **Policy 3:** “continue to support legislation that encourages and facilitates protection of endangered, threatened, sensitive and rare species and their habitats and habitat corridors.”

Section 12: Habitats

The Habitats section is similar to that of the endangered species section. However, the Habitats section includes preserving, and enhancement of natural flora and fauna diversity, and increasing healthy breeding relationships.

- **Policy 1:** “continue to identify significant habitat areas, corridors and buffers and to take measures to protect, enhance and/or restore them.”
- **Policy 2:** “continue to protect, restore and/or enhance habitat areas, linkages and corridor segments, to the greatest extent practical, within City owned or managed sites.”
- **Policy 3:** “continue to work cooperatively with other agencies and entities in protecting local habitats and endangered, threatened, sensitive and rare species.”
- **Policy 4:** “continue to support legislation that encourages and facilitates protection of local native plant and animal habitats.”

2.1.3.3 City of Los Angeles Native Tree Protection Ordinance

The City of Los Angeles implements the Native Tree Protection Ordinance (Ordinance No. 177,404) to slow the decline of native tree habitat; this ordinance became law on April 23, 2006. The Native Tree Protection Ordinance protects all Southern California native oak tree species (*Quercus* spp.) (excluding scrub oak), western sycamore (*Platanus racemosa*), California bay (*Umbellularia californica*), and California black walnut (*Juglans californica*) with a 4-inch or greater diameter at 4.5 feet above ground (multiple trunk trees are calculated by cumulative diameter). This ordinance requires a report that shows the location of each protected tree in a project area and states if a tree is to be retained, relocated, or removed; the report documents the proposed replacement measures to be submitted by the registered consulting arborist, landscape architect, or a pest control advisor who is also a certified arborist. Protected tree removal requires a removal permit from the Board of Public Works and a replacement ratio of 2:1.

2.1.3.4 City of San Fernando Comprehensive Tree Management Program Ordinance

The City of San Fernando implements the Comprehensive Tree Management Program Ordinance (Ordinance No. 1539) to establish regulation over the maintenance of trees located on public property; this ordinance became law on November 4, 2002.⁴ The Comprehensive Tree Management Program protects heritage trees. Heritage trees are specifically designated by the City Council upon recommendation by the City's tree commission as a heritage tree which meets one or more of the following criteria: (1) the tree's age and association with a historic building or district gives the tree historical significance; (2) the tree represents a specimen that is particularly rare in the Los Angeles basin and is of considerable size and age; (3) the tree possesses unique characteristics or special horticultural significance; or (4) the tree is of a significant size and/or makes a significant and outstanding aesthetic impact to its setting and is an exceptional specimen in good condition and health. All construction shall preserve and protect the health of trees to remain, relocated trees, and new trees to be planted. Public tree removal requires a removal permit from the public works director and is good for 20 days after its date of issuance.

2.2 Methodology

2.2.1 Literature Review

A comprehensive literature review was conducted to evaluate the environmental setting of the biological study area and identify potential special-status plant communities and species that may be found on the site. The review included a search of the California Natural Diversity Database⁵ and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants⁶ for the Newhall, Mint Canyon, Agua Dulce, Oat Mountain, San Fernando, Sunland, Canoga Park, Van Nuys, Burbank, Topanga, Beverly Hills, and Hollywood 7.5-minute USGS quadrangles. In addition, U.S. Fish and Wildlife Service (USFWS), Carlsbad office, species occurrence data (3/5/2013) and designated critical habitat data were reviewed. Recent aerial photographs were also reviewed to assess the biological study area with respect to potential habitat for plants and wildlife. Furthermore, the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (2013) was reviewed and available soils data did not cover the biological study area. Soil data from the Los Angeles County Department of Public Works was also reviewed (southeastern and west San Fernando Valley area). The soil data were then evaluated to determine the potential for rare plants to occur.

For this report, "special-status" species are those that are: listed, proposed for listing, or candidates for listing under the federal ESA as threatened or endangered; listed or candidates for listing under the CESA as threatened or endangered; listed as rare under the Native Plant Protection Act; a state species of special concern or fully protected species; or are on the California Rare Plant Rank as 1B, 2, or 3. Plants with a California Rare Plant Rank of 1B are rare, threatened, or endangered in California and elsewhere and are rare throughout their range with the majority of them endemic to California.

⁴ City of San Fernando. 2002. *Code of Ordinances, City of San Fernando, California, Comprehensive Tree Management Program Ordinance* (Ordinance No. 1539). San Fernando, CA. Available: <<http://library.municode.com/index.aspx?clientId=11299>>. Accessed: March 7, 2013.

⁵ California Department of Fish and Wildlife. 2013. *California Natural Diversity Database*. Sacramento, CA: Wildlife Habitat Data Analysis Branch, Habitat Conservation Division. Accessed: February 25, 2013.

⁶ California Native Plant Society. 2013. *Inventory of Rare and Endangered Plants* (online edition, v7-11). Sacramento, CA. Available: <<http://www.cnps.org/inventory>>. Accessed: February 25, 2013.

Most of the plants that are ranked 1B have declined significantly over the last century. Plants with a California Rare Plant Rank of 2 are rare, threatened, or endangered in California, but more common elsewhere. Except for being common beyond the boundaries of California, plants with a California Rare Plant Rank of 2 would have been ranked 1B. Nearly all of the plants constituting California Rare Plant Rank 3 are taxonomically problematic. Plants with a California Rare Plant Rank of 3 are ones for which more information is needed for these species to fall under one of the other ranks or to reject them from rank classification altogether. All of the plants constituting California Rare Plant Rank 1B or 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. Some of the plants constituting California Rare Plant Rank 3 meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing.

The *LA CEQA Thresholds Guide* (2006) defines a Sensitive Biological Resource as follows:

- A plant or animal that is currently listed by a state or federal agency(ies) as endangered, threatened, rare, protected, sensitive or a Species of Special Concern or federally listed critical habitat;
- A plant or animal that is currently listed by a state or federal agency(ies) as a candidate species or proposed for state or federal listing; or
- A locally designated or recognized species or habitat.

2.2.2 Field Investigation

A site visit was conducted between 9:30 am and 1:15 pm on February 27, 2013, by an ICF biologist/arborist. The site visit focused on mapping vegetation, assessing jurisdictional resources, and conducting habitat assessments for special-status plants and wildlife. Weather conditions during the site visit consisted of temperatures ranging from 15.5°C to 22.7°C (60°F to 73°F), winds ranging from 0 to 5 mph, and clear skies with no cloud cover. Visibility was good.

To evaluate biological and regulatory conditions, the Project and a 500-foot buffer from the centerline of the Project corridor and extended out for inclusion of traction power substation (TPSS) locations was established as the biological resource study area. The biological resource study area was evaluated to determine the presence, absence, or likelihood of occurrence of special-status species and vegetation types. General biological resource issues with the potential to pose a constraint to the Project through applicable laws and regulations were also evaluated. The field effort included hand mapping natural vegetation communities and developing detailed field notes to identify the extent and character of potential jurisdictional drainage features. This included compiling compendia of wildlife and relevant plant species observed, natural vegetation communities and their composition, observed soil types, animal sign, and both natural and anthropogenic (human) disturbances that may affect use of the biological study area by relevant species. Focused plant and wildlife surveys were not performed during the site visit.

Parameters evaluated for special-status plants included topography, soil condition, elevation, hydrology, operational activities, and the life history needs of the specific species. Special-status parameters for wildlife included connectivity to documented and potentially occurring habitat, hydrology, access to the site, foraging and nesting habitat, the site's operational activities, and the life history needs of each species.

All plant and wildlife species observed during the site visit were recorded in field notes. Plants were detected and identified through direct sight. Plants were identified to the species level based on previous experience with the species or through use of the Jepson Manual, Vascular Plants of California (2012). Special-status rankings for plant species were identified through a review of the CNPS online inventory of rare and endangered plants. Wildlife species were detected by sight, calls, tracks, scat, or other sign. Special-status rankings for wildlife were identified through a review of the California Department of Fish and Game *Special Animals List* (2011).

2.2.3 Vegetation Mapping

Vegetation mapping was conducted in the field using Google Earth aerials dated August 26, 2013. During the vegetation mapping, any areas of special-status habitat under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and/or CDFW were noted (see results in Figure 2-1, Biological Resources Map). Where possible, the vegetation mapping followed the classifications defined in *A Manual of California Vegetation* (Sawyer et al. 2009); however, Holland (1986) was also consulted.

2.2.4 Impact Analysis Approach

The significance thresholds listed below were used to determine whether an impact would be significant. The biological resource study area was considered the geographical extent of physical disturbance related to the Project. Potential effects on special-status species and natural communities within the biological resource study area were evaluated according to the highest likelihood of occurrence of each resource.

The impact analysis compares all Project alternatives to existing conditions. Direct impacts are those impacts that are caused by the Project and occur at the same time and place as the actions that may cause the impacts (California Code of Regulations Section 15358). Indirect impacts are impacts caused by the project and are later in time or farther removed in distance from the actions that cause the impacts, but are still reasonably foreseeable (California Code of Regulations Section 15358). Short-term or temporary impacts can be direct or indirect, and are those that occur over a short timeframe of a project (examples include construction-related indirect impacts and staging area direct impacts that will be returned to pre-project conditions). Long-term or permanent impacts can also be direct or indirect, and are those that will occur through the life of a project (examples include the permanent footprint of a project, indirect operational impacts, and maintenance activities).

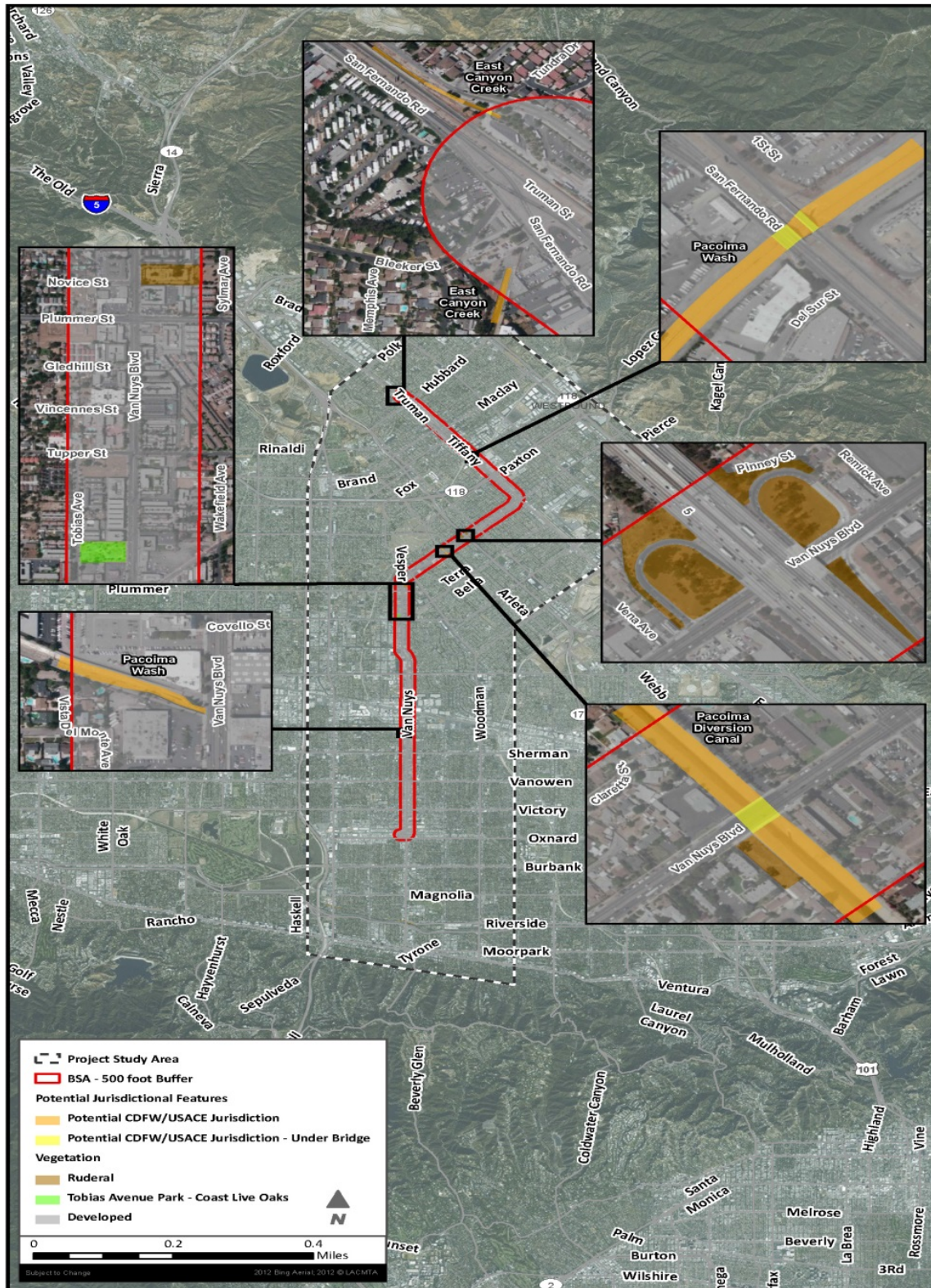
2.3 Significance Thresholds

Significance thresholds are used to determine whether a project may have a significant environmental effect. The significance thresholds, as defined by federal and state regulations and guidelines, are discussed below.

2.3.1 Federal

NEPA does not include specific significance thresholds. According to the Council on Environmental Quality (CEQ) Regulations for Implementing NEPA, the determination of significance under NEPA is based on context and intensity. The State CEQA thresholds (described below) encompass the factors taken into account under NEPA to determine the significance of an action in terms of its context and the intensity of its impacts. Therefore, the CEQA thresholds listed below also apply to NEPA for the Project and its alternatives.

Figure 2-1: Biological Resources Map



In addition, impacts on biological resources could be considered significant if the Project would result in adverse modification of U.S. Army Corps of Engineers regulated non-wetland waters of the United States under Section 404 of the Clean Water Act.

2.3.2 State

CEQA does not describe specific significance thresholds. According to the Governor's Office of Planning and Research (OPR), significance thresholds for a given environmental effect are the discretion of the Lead Agency and are the levels at which the Lead Agency finds the effects of the Project to be significant (OPR 1994).

With respect to the California Fish and Game Code and the regulation of state waters, a significant impact could occur if a project would result in:

- Adverse modification of CDFW jurisdictional authority over rivers, streams, and lakes under California Fish and Game Code Section 1602; or
- Adverse modification of State Water Resources Control Board regulation of discharges into state waters.

2.3.2.1 State CEQA Guidelines

The State CEQA Guidelines define a significant effect on the environment as: "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance" (CEQA Guidelines, Section 15382).

The State CEQA Guidelines do not describe specific significance thresholds. However, the CEQA Guidelines lists a variety of potentially significant effects.

As outlined in Appendix G of the State CEQA Guidelines, a project may have a significant effect on ecosystems/biological resources if the project would result in:

- A substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS.
- A substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marshes, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

2.3.2.2 LA CEQA Thresholds Guide

According to the *LA CEQA Thresholds Guide* (2006), a project would normally have a significant impact on surface water hydrology if it would result in:

- The loss of individuals, or the reduction of existing habitat, of a state or federal listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or federally listed critical habitat.
- The loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated natural habitat or plant community.
- Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species.
- The alteration of an existing wetland habitat.
- Interference with habitat such that normal species behaviors are disturbed (e.g., from the introduction of noise, light) to a degree that may diminish the chances for long-term survival of a sensitive species.

2.4 Study Area

To evaluate biological and regulatory conditions and potential direct and indirect effects, the Project and a 500-foot buffer from the centerline of the Project corridor and extended out for inclusion of traction power substation (TPSS) locations was established as the biological resources study area.

Chapter 3

Affected Environment/Existing Conditions

The biological resources study area is urbanized, but supports urban park space and ornamental landscaping. Three drainage features intersect the biological resource study area. These are, from south to north, the Pacoima Wash (twice; at Van Nuys Blvd and again at Truman St.), the Pacoima Diversion Canal, and East Canyon Creek (see Figure 2-1, Biological Resources Map).

3.1 Vegetation Communities

3.1.1 Developed Areas

Developed areas dominate the biological resources study area and, for this report, include impervious surfaces and ornamental landscaping. Within the biological resources study area, developed areas consist of roadways, sidewalks, driveways and parking areas, loading docks, restaurants, retail businesses, equipment and supply storage facilities (e.g., for landscaping and building material suppliers), residences, and transit stations. Ornamental vegetation is present along much of the corridor and in the residential areas. In addition, a number of mature western sycamores are planted as street trees at various locations along the corridor, and young coast live oak (*Quercus agrifolia*) plantings are at Tobias Avenue Park, just north of Nordhoff Street.

Ornamental plant species observed to be common within the biological resource study area include, though are not limited to:

- Italian cypress (*Cupressus sempervirens*),
- Lemon-scented gum tree (*Eucalyptus citriodora*),
- Fig tree (*Ficus microcarpa*),
- Ginkgo (*Ginkgo biloba*),
- Jacaranda (*Jacaranda mimosifolia*),
- Crape myrtle (*Lagerstroemia indica*),
- American sweet gum (*Liquidambar styraciflua*),
- Flaxleaf paperbark (*Melaleuca linariifolia*),
- Olive tree (*Olea europaea*),
- Canary Island date palm (*Phoenix canariensis*),
- Canary Island pine (*Pinus canariensis*),
- Italian stone pine (*Pinus pinea*),
- Fern pine (*Podocarpus gracilior*),
- Holly oak (*Quercus ilex*),
- Peruvian pepper-tree (*Schinus molle*),

- Coast redwood (*Sequoia sempervirens*),
- Queen palm (*Syagrus romanzoffianum*),
- Mexican fan palm (*Washingtonia robusta*), and
- Turf grasses.

In addition, western sycamore and coast live oak, which are clearly planted within the ornamental landscaping, were the only tree species observed that are native to southern California. A small amount of weedy native annuals and short-lived perennials are also scattered in the ornamental areas.

3.1.2 Ruderal/Disturbed

Ruderal/disturbed areas are dirt areas (e.g., abandoned parkways, railroad rights-of-way) that have been or are currently subject to intensive disturbance; these areas preclude any natural community. Plant species occurring in disturbed areas are typically opportunistic, invasive species. Such species are adapted to rapid colonization of soils that have been recently exposed or compacted, amended, or otherwise greatly altered. Open areas in the biological resource study area exhibit fairly high to very high degrees of past disturbance. The most extensive areas in the biological resource study area are the vacant lots along the alignment; these areas are largely bare dirt or overgrown. Plant species found in these areas of the biological resource study area include a moderate variety of disturbance-adapted species, such as common horseweed (*Conyza canadensis*), Bermuda grass (*Cynodon dactylon*), crabgrass (*Digitaria sanguinalis*), telegraph weed (*Heterotheca grandiflora*), prickly lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), smilo grass (*Piptatherum miliaceum*), Russian-thistle (*Salsola tragus*), and common sow thistle (*Sonchus oleraceus*).

3.2 Soils

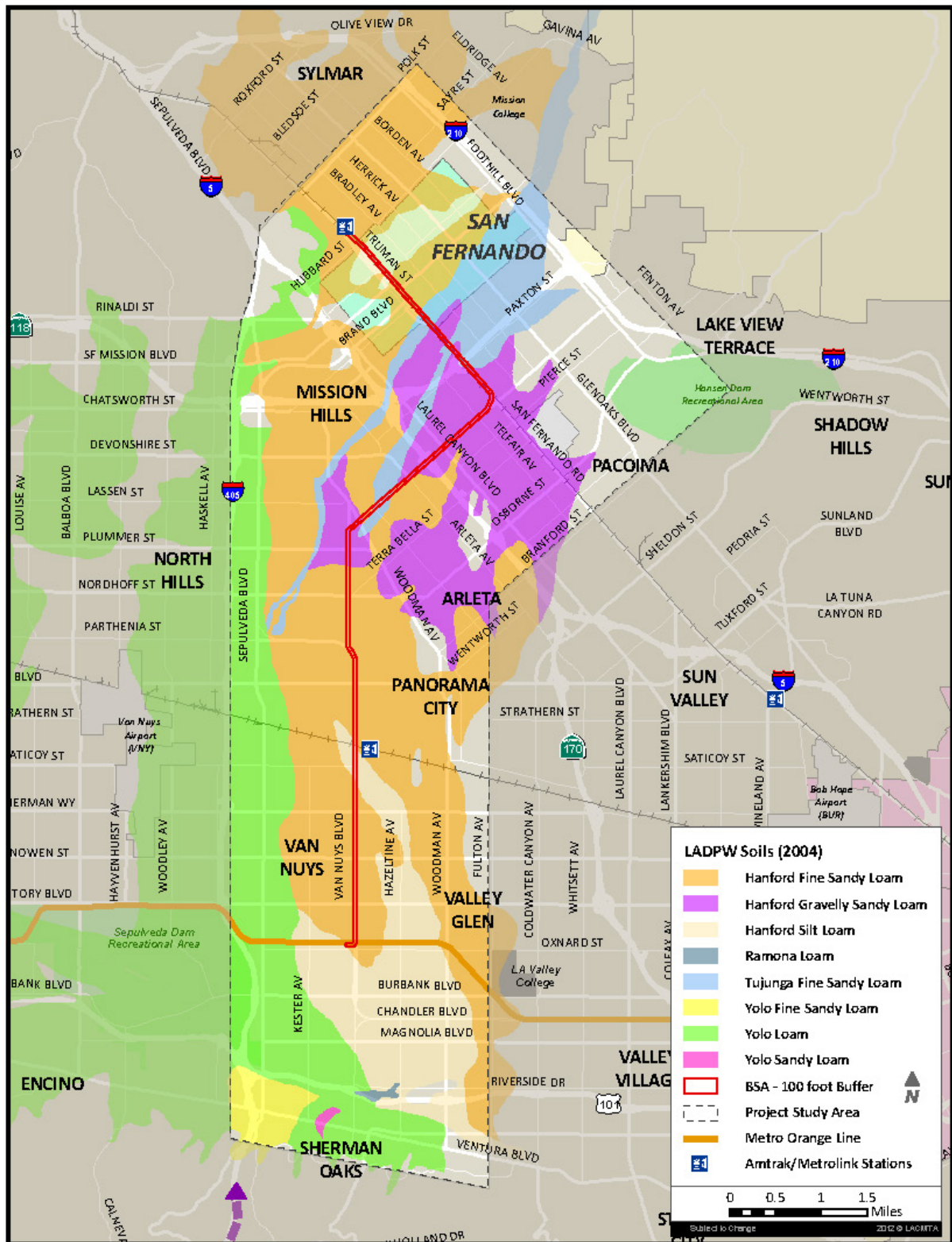
Soils within the biological resource study area are compacted throughout, except in landscaped areas, and nearly devoid of vegetation, except for planted street trees and shrubbery. Several soil types are mapped within the biological resource study area which includes Hanford fine sandy loam, Hanford gravelly sandy loam, Hanford silt loam, Ramona loam, Tujunga sandy loam, Yolo fine sandy loam, Yolo sandy loam, and Yolo loam.⁷ See soil results in Figure 3-1, Soil Resources Map.

3.3 Wildlife

Overall wildlife abundance and species richness appear to be low because of the urbanized nature of the biological resources study area. However, nine species of birds were observed during the site visit. These include house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), California gull (*Larus californicus*), northern mockingbird (*Mimus polyglottos*), cliff swallow (*Petrochelidon pyrrhonota*), black phoebe (*Sayornis nigricans*), and European starling (*Sturnus vulgaris*). All of these are common, widespread species and strongly adapted to human-altered landscapes with intensive use.

⁷ Los Angeles County Department of Public Works, 2006, *2006 Hydrology Manual, Appendix B Hydrologic Maps*. Los Angeles County Department of Public Works. Available: <http://ladpw.org/wrd/publication/engineering/2006_Hydrology_Manual/2006%20Hydrology%20Manual-Divided.pdf>. Accessed: March 1, 2013.

Figure 3-1: Soil Resources Map



3.4 Wildlife Corridors

Although the Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek are waterways, which are typically considered potential wildlife movement corridors, each is a concrete channel that supports little to no plant growth. Furthermore, all are located in an urbanized environment. Therefore, they would not be expected to function as significant wildlife movement corridors. Both the Hansen and Sepulveda Dams are upstream of the aforementioned jurisdictional resources.⁸ Sensitive species within these dams have limited potential to utilize these downstream wildlife corridors.

3.5 Critical Habitat

A review of USFWS critical habitat maps indicates that no critical habitat has been mapped within the biological resources study area.⁹

3.6 Raptor Foraging

The site was evaluated for its potential to support raptor foraging activities. No raptors or raptor nests were observed within or in the vicinity of the biological resource study area during the site visit. Because of the urban character of the biological resource study area, it does not support quality raptor foraging habitat.

3.7 Nesting Birds

Ornamental landscaping, including mature trees, throughout the biological resource study area has the potential to provide nesting habitat for birds. Common native urban bird species that may nest in ornamental landscaping include lesser goldfinch (*Carduelis pinus*), Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird, common raven (*Corvus corax*), American crow, Anna's hummingbird (*Calypte anna*), house finch, and hooded oriole (*Icterus cucullatus*). In addition, there is reasonable potential for buildings and bridges/overpasses to support nesting opportunities for native birds that are common in urbanized areas, such as American kestrel, house finch, black phoebe, cliff swallow, northern rough-winged swallow (*Stelgidopteryx serripennis*), and white-throated swift (*Aeronautes saxatalis*). A few species, primarily killdeer (*Charadrius vociferus*), may choose to nest on bare ground within the biological resources study area. Refer to Figure 3-2 for representational photographs of potential nesting and roosting habitat as observed within the biological resources study area.

⁸ Jurisdictional resources are rivers, creeks, streambeds, channels, spillways, culverts, or other water features that are found to be under the jurisdiction of one or all of the following agencies: U.S. Army Corps of Engineers, California Regional Water Quality Control Board, and California Department of Fish and Wildlife.

⁹ U.S. Fish and Wildlife Service (USFWS). 2013. Carlsbad office database of threatened and endangered species; dated March 5, 2013.

Figure 3-2: Representative Site Photographs of Potential Nesting or Roosting Habitat



Clockwise from upper left: view facing northwest view of I-5 freeway overpass at Van Nuys Boulevard crossing showing potential nesting or roosting habitat, facing south; view of Van Nuys Boulevard showing potential palm tree roosting habitat, facing south; and view of Orange Line Busway showing potential nesting habitat in vegetation, facing east.

Source: ICF International, 2013.

3.8 Tree Protection

Ornamental trees are present within the biological resource study area, including a number of mature western sycamores scattered throughout Van Nuys Boulevard and young coast live oak plantings in Tobias Avenue Park, just north of Nordhoff Avenue also along Van Nuys Boulevard. It is likely that the majority of observed western sycamores and coast live oaks exceed the City of Los Angeles's four inch diameter above breast height regulation requirement and may qualify as protected trees under the City of Los Angeles ordinance. Within the City of San Fernando, there may be heritage trees located within the biological resources study area. The City of San Fernando determines heritage trees on a case-by-case basis.¹⁰

¹⁰ Ruiz, Ron. Public Works Director. City of San Fernando. Email Conversation. March 26, 2013.

3.9 Jurisdictional Resources

The Pacoima Wash, a concrete open box culvert with a flat bottom, intersects the biological resources study area at the approximate midway point, just south of Saticoy Street. At this point, the wash ceases to be a surface water feature and transitions to become part of the City’s underground stormwater system. Minimal surface flows were present during the site assessment. At that time, water within the approximately 20-foot-wide (from top of banks) wash, consisted of seasonal runoff from adjacent developed areas. There are trace amounts of vegetation within the wash bottom. The Pacoima Wash is again intersected at San Fernando Road just north of the State Route 118. At this point, the wash is a trapezoidal channel with a concrete bottom, approximately 65 feet wide at the top of banks and bottom approximately 12 feet wide at toe of slopes, and similar to downstream with respect to the relative lack of vegetation (well below one percent). Refer to Figure 3-3 for a representational photograph of the Pacoima Wash as observed within the biological resources study area.

Figure 3-3: Representative Site Photographs of Jurisdictional Resources



Clockwise from upper left: view of Pacoima Wash at Van Nuys Boulevard crossing, facing west; Pacoima Diversion Canal crossing at Van Nuys Boulevard, facing northeast; and East Canyon Creek at San Fernando Road crossing, facing south.

Source: ICF International, 2013.

The Pacoima Diversion Canal intersects the biological resources study area, crossing Van Nuys Boulevard near the northern end of the biological resources study area, just southwest of the I-5 freeway. The canal is a trapezoidal channel with a concrete bottom, approximately 120 feet wide at the top of the banks, and similar to the Pacoima Wash with trace amounts of vegetation present. Refer to Figure 3-3 for a representational photograph of the Pacoima Diversion Canal as observed within the biological resources study area.

The East Canyon Creek, a concrete open box culvert with a flat bottom, intersects the biological resources study area at the approximate north end point of the biological resources study area, crossing from near Sayre Street and underneath San Fernando Road. Minimal surface flows were present during the reconnaissance-level site assessment. At that time, water within the approximately 20-foot-wide from top of banks wash consisted of seasonal runoff from adjacent developed areas. There are trace amounts of vegetation within the wash bottom. Refer to Figure 3-3 for a representational photograph of the East Canyon Creek as observed within the biological resources study area.

The East Canyon Creek, Pacoima Wash, and Pacoima Diversion Canal possess hydrologic connectivity to downstream waters that eventually flow to the Los Angeles River. The Los Angeles River has been determined to be a Traditionally Navigable Water (TNW) by USACE. Therefore, all three open channels that intersect the biological resources study area will likely be determined to be jurisdictional by United State Army Corp of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board. See jurisdictional resources results in Figure 2-1, Biological Resources Map.

3.10 Sensitive Plant Communities

After the literature review and initial field visit, it was determined that, due to the urbanized conditions, none of the 12 natural communities initially evaluated (see Table 3.2 below) have potential to occur within the biological resources study area.

3.11 Special-Status Plants

During the literature review, a total of 50 special status plants were initially determined to have some potential to occur within the geographical vicinity of the biological resources study area. However, given the observed conditions during the initial field evaluation, none of the species were judged to have the potential to occur within the biological resources study area. No plants with special status were detected during any of the current fieldwork; however, the fieldwork was not conducted during the peak blooming period for many of the species listed. Table 3.1, below, lists the special-status plant species reviewed and their likelihood of occurrence in the biological resources study area. The determinations are based on a combination of factors (e.g., the species' requirements with respect to soils, hydrology, habitats, elevation range, and disturbance tolerance) along with consideration of biological resources study area conditions and observed resources. Because the natural habitats that may have previously existed in the biological resources study area have since been converted to residential and industrial development, essentially no habitat for special-status plant species exists.

Table 3.1: Special-Status Plant Species Potential for Occurrence in the Biological Resources Study Area

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Arenaria paludicola</i> marsh sandwort	Perennial stoloniferous herb. Grows up through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc., in freshwater marsh. Occurs almost always under natural conditions in wetlands. Occurs from 30-510 feet elevation.	May-August	Fed: END State: SE CRPR 1B.1	Less than Reasonable	Suitable dense freshwater marsh does not occur in the BSA. Species not collected in L.A. County since 1900.
<i>Astragalus brauntonii</i> Braunton's milk-vetch	Perennial herb. Occurs in closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland and recent burns or disturbed areas. Often found in association with stiff gravelly clay soils overlaying granite or limestone. Occurs from 13-2,099 feet elevation.	January-August	Fed: END State: None CRPR 1B.1	Less than Reasonable	BSA contains areas of disturbed habitat. However, the species is not expected to occur within the BSA due to a lack of seed source in the area.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura marsh milk-vetch	Perennial herb. Occurs in coastal strand and beach areas. Occurs from below 115 feet elevation.	June-October	Fed: END State: SE CRPR 1B.1	Less than Reasonable	BSA lacks suitable coastal and beach habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Astragalus tener</i> var. <i>titi</i> Coastal Dunes Milk-vetch	Annual herb. Occurs in moist, sandy depressions in coastal bluff scrub and coastal dunes. Occurs from below 165 feet in elevation.	March-May	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable coastal bluff habitat.
<i>Atriplex parishii</i> Parish's brittle-scale	Annual herb. Occurs in drying alkali flats with fine soils below 460 feet elevation.	June-October	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable alkaline flat habitat.
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's salt-scale	Annual herb. Occurs in coastal bluff scrub, coastal scrub. Associated with alkali soils. Occurs from 9-750 feet elevation.	April-October	Fed: none State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable coastal/alkaline habitat.
<i>Berberis nevini</i> Nevin's barberry	Perennial evergreen shrub. Occurring in chaparral, cismontane woodland, coastal scrub, and sandy or gravelly riparian scrub at elevations ranging from 950 to 2,700 feet.	March-June	Fed: END State: SE CRPR 1B.1	Confirmed Absent	Perennial shrub not observed in BSA. BSA lacks suitable upland and sandy/gravelly riparian scrub habitat.
<i>Calandrinia breweri</i> Brewer's calandrinia	Annual herb. Known from previously burned chaparral and coastal sage scrub associated with sandy to loamy soils. Occurs below 3,600 feet elevation.	March-June	Fed: none State: none CRPR 4.2	Less than Reasonable	BSA lacks suitable chaparral and coastal sage scrub habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>California macrophylla</i> round-leaved filaree	Annual herb. Clay soils within cismontane woodland and valley and foothill grassland ranging in elevation from 490-3,935 feet.	March-May	Fed: none State: none CRPR 4.2	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Calochortus clavatus</i> var. <i>gracilis</i> slender mariposa lily	Perennial bulbiferous herb. Shaded foothill canyons, often on grassy slopes within coastal scrub or chaparral. Occurs from 1,050-3,280 feet elevation.	March-June	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Calochortus plummerae</i> Plummer's mariposa lily	Perennial bulbiferous herb. Occurs in scrub, grassland, chaparral, and open woodland habitats in dry, rocky situations on granitic soils ranging from about 328 to 5,576 feet in elevation.	May-July	Fed: none State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Calystegia peirsonii</i> Pierson's morning-glory	Perennial rhizomatous herb. Occurs in shade-scale scrub, chaparral, cis-montane woodland, coastal sage scrub, yellow pine forest. Occurs from 90-4,500 feet elevation.	April-June	Fed: none State: none CRPR 4.2	Less than Reasonable	BSA lacks suitable upland habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Calystegia sepium</i> ssp. <i>binghamiae</i> Santa Barbara morning-glory	Perennial rhizomatous herb. Occurs in coastal marshes, below 60 feet elevation. Occurs almost always under natural conditions in wetlands.	April-May	Fed: none State: none CRPR 1.A	Less than Reasonable	BSA lacks suitable coastal marsh habitat.
<i>Camissonia lewisii</i> Lewis' evening-primrose	Annual herb. Occurs in coastal dunes, cis-montane woodland, coastal sage scrub and valley and foothill grassland below 900 feet elevation.	March-June	Fed: none State: none CRPR 3	Less than Reasonable	BSA lacks suitable coastal and upland habitat.
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	Annual herb. Occurs in moist situations within annual grasslands, around the margins of vernal pools, in alkaline meadows, and in brackish marshes and estuaries; also in disturbed places at elevations up to 1,394 feet.	May-November	Fed: none State: none CRPR 1B.1	Low	BSA supports areas of low quality disturbed habitat.
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	Annual herb. Occurs in coastal scrub with sandy soils from elevations ranging from 9-3,395 feet.	April-July	Fed: FC State: SE CRPR 1B.1	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i> Salt Marsh bird's-beak	Annual herb (hemiparasitic). Occurs in coastal salt marshes at elevations below 90 feet.	May-October	Fed: END State: SE CRPR 1B.2	Less than Reasonable	BSA lacks suitable coastal marsh and dune habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Deinandra minthornii</i> Santa Susana tarplant	Perennial deciduous shrub. Occurs in sandstone outcrops and crevices, in natural shrub lands from 920-2,490 feet elevation.	July-November	Fed: none State: SR CRPR 1B.2	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Dithyrea maritima</i> Beach spectaclepod	Perennial rhizomatous herb. Occurs in coastal dunes and sandy coastal scrub from below 165 feet elevation.	March-May	Fed: none State: ST CRPR 1B.2	Less than Reasonable	BSA lacks suitable coastal habitat.
<i>Dodecahema leptoceras</i> slender-horned spineflower	Annual herb. Occurs in chaparral and alluvial fan sage scrub within flood deposited terraces & washes. Elevation range 656-2,493 feet.	April-June	Fed: END State: SE CRPR 1B.1	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	Perennial herb. Occurs in dry rocky or stony places within annual grassland and coastal sage scrub below 1,500 feet elevation.	April-June	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i> Santa Monica dudleya	Perennial herb. Occurs on shaded rocky slopes on volcanic soils in chaparral and coastal scrub at elevations ranging from roughly 490 to 5,490 feet.	March-June	Fed: THR State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable upland habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Dudleya multicaulis</i> many-stemmed dudleya	Perennial herb. Occurs on poor soils often on clay or at the margins of gabbroic rock outcrops in coastal sage scrub and grassland communities from about 50 to 2,591 feet elevation.	May-July	Fed: none State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Harpagonella palmeri</i> Palmer's grapplinghook	Annual herb. Open areas within coastal sage scrub, juniper woodlands. Clay soils below 2,700 feet elevation.	March-May	Fed: none State: none CRPR 4.2	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Helianthus inexpectatus</i> Newhall sunflower	Perennial rhizomatous herb. Occurs in spring-fed marshes in willow woodland. Known to occur at one location in Santa Clarita at approximately 915 feet in elevation.	August-October	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable riparian woodland habitat. Known to occur at one location in Santa Clarita.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i> Los Angeles sunflower	Presumed extinct. Perennial rhizomatous herb. Occurs in damp meadows and marshes (coastal salt and freshwater) from 328-5,494 feet elevation.	August-October	Fed: none State: none CRPR 1A	Less than Reasonable	BSA lacks suitable meadow and coastal marsh habitat.
<i>Heuchera caespitosa</i> Urn flowered alumroot	Perennial herb. Occurs in rocky areas; from 3,788-8,692 feet elevation.	May-August	Fed: none State: none CRPR 4.3	Less than Reasonable	BSA lacks suitable rocky habitat. BSA is below the known elevation range of the species.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Horkelia cuneata</i> ssp. <i>puberula</i> Mesa horkelia	Perennial herb occurring in coastal scrub, chaparral and cismontane woodland on sandy or gravelly soils at elevations ranging from 230 to 2,660 feet.	February-September	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Hulsea vestita</i> ssp. <i>gabrielensis</i> San Gabriel Mountains sunflower	Perennial herb. Occurs in open gravel, talus slopes, chaparral, and montane forest from 4,500–7,500 feet elevation.	May-July	Fed: none State: none CRPR 4.3	Less than Reasonable	BSA lacks suitable rocky habitat. BSA is below the known elevation range of the species.
<i>Hulsea vestita</i> ssp. <i>parryi</i> Parry's sunflower	Perennial herb. Occurs on open gravel, talus slopes, sagebrush to fir forest; elevation range 6,000–7,500 feet.	April-August	Fed: none State: none CRPR 4.3	Less than Reasonable	BSA lacks suitable rocky habitat. BSA is below the known elevation range of the species.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	Annual herb. Occurs in saline places, vernal pools; below 3,000 feet in elevation.	February-June	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable saline/vernal pool habitat.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> ocellated Humboldt lily	Perennial bulbiferous herb. Occurs in oak canyons, chaparral and yellow-pine forest; below 4,400 feet in elevation.	March-August	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Linanthus concinnus</i> San Gabriel linanthus	Annual herb. Occurs on rocky slopes from 5,100–8,400 feet elevation.	April-July	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable rocky habitat. BSA is below the known elevation range of the species.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Malacothamnus davidsonii</i> Davidson's bush mallow	Perennial deciduous shrub occurring in coastal scrub, cismontane woodland, riparian woodland, and chaparral, often-in sandy washes at elevations ranging from 610-2,805 feet elevation.	June- January	Fed: none State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable upland habitat.
<i>Nama stenocarpum</i> mud nama	Annual/perennial herb. Occurs in marshes and swamps, such as at lake margins and riverbanks, and grows at elevations ranging from 16 to 1,640 feet.	January- July	Fed: none State: none CRPR 2.2	Less than Reasonable	BSA lacks suitable muddy marsh, swamp and lakeshore habitat.
<i>Nasturtium gambelii</i> Gambel's water cress	Perennial wetland herb. Occurs in brackish and freshwater marshes, streambanks, lake margins, and similar swampy areas and grows at elevations ranging from 10 to 1,080 feet.	January- July	Fed: END State: THR CRPR 1B.1	Less than Reasonable	BSA lacks suitable marsh, streambank and lakeshore habitat. Species thought to be extirpated from L.A. County as there is only 1 occurrence for this species in L.A. County (1892).
<i>Navarretia fossalis</i> spreading navarretia	Annual herb. Occurs in vernal pools and vernal moist ditches from elevations from 90–3,900 feet.	April-June	Fed: THR State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable vernal habitat.
<i>Navarretia setiloba</i> Piute Mountains navarretia	Annual herb. Occurs in depressions in clay or gravelly loam from 1,000–6,300 feet elevation.	April-June	Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks vernal pool/depressional habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Opuntia basilaris</i> var. <i>brachyclada</i> short-joint beavertail	Perennial stem succulent. Occurs in chaparral, Joshua tree woodland, Mojave desert scrub, pinyon juniper woodland, and riparian woodland. Sandy soil or coarse, granitic loam. Elevation range 1,275-5,400 feet.	April-August	Fed: none State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable upland habitat. BSA occurs outside of the known range of the species.
<i>Orcuttia californica</i> California Orcutt's grass	Annual Herb. Occurs in deep long-lived vernal pools from 50-2,165 feet elevation.	April-August	Fed: END State: SE CRPR 1B.1	Less than Reasonable	BSA lacks vernal pool habitat.
<i>Phacelia hubbyi</i> Hubby's phacelia	Annual herb. Occurs on gravelly or rocky slopes within chaparral, grassland below 3,000 feet in elevation.	April-June	Fed: none State: none CRPR 4.2	Less than Reasonable	BSA lacks suitable rocky habitat.
<i>Phacelia mohavensis</i> Mojave phacelia	Annual herb. Occurs in sandy or gravelly soils within coniferous forest from 2,700–7,700 feet elevation.	April-June	Fed: none State: none CRPR 4.3	Less than Reasonable	BSA lacks suitable upland habitat. BSA is below the known elevation range of the species.
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	Perennial herb. Occurs in sandy soil in washes, alluvial scrub, and mule fat scrub from elevations below 6,888 feet.	August-November	Fed: none State: none CRPR 2.2	Less than Reasonable	BSA lacks suitable alluvial habitat.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Quercus durata</i> var. <i>gabrielensis</i> San Gabriel oak	Perennial evergreen shrub. Occurs in chaparral on granitic soils from 1,350–3,000 feet elevation.	April-May	Fed: none State: none CRPR 4.2	Confirmed Absent	This perennial shrub was not observed in the BSA. BSA lacks suitable upland habitat.
<i>Senecio aphanactis</i> chaparral ragwort	Annual herb. Occurs on coastal bluffs, rock outcrops, and xeric barrens in open coastal bluff scrub and coastal sage scrub from 50-2,625 feet elevation.	January-April	Fed: none State: none CRPR 2.2	Less than Reasonable	BSA lacks suitable coastal and xeric barren habitat.
<i>Sidalcea neomexicana</i> Salt Spring checkerbloom	Perennial herb. Occurs in alkali seeps and other moist alkaline site at an elevation range 45 to 5,015 feet.	March-June	Fed: none State: none CRPR 2.2	Less than Reasonable	BSA lacks suitable alkaline habitat.
<i>Symphotrichum defoliatum</i> San Bernardino aster	Perennial herb. Occurs in meadows & seeps, marshes & swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, vernal mesic grassland or near ditches, streams & springs from below 6,700 feet elevation.	July-November	Fed: none State: none CRPR 1B.2	Less than Reasonable	BSA lacks suitable marsh and upland habitat. Species thought to be extirpated from L.A. County as the most recent collection is from 1930.

Special Status Plants	Life Form and Habitat	Flower Season	Conservation Status	Occurrence Probability	Comments
<i>Symphytotrichum greatae</i>	Perennial herb. Occurs in chaparral, cis-montane woodland, deciduous upland forest, lower montane coniferous forest and riparian woodlands from 980-6,590 feet elevation.		Fed: none State: none CRPR 1B.1	Less than Reasonable	BSA lacks suitable woodland habitat.

Status Codes:

END: Federally Endangered; **THR:** Federally Threatened; **FPE:** Federally proposed Endangered; **FPT:** Federally proposed Threatened; **FC:** Federal Candidate species; **SE:** State Endangered; **ST:** State Threatened; **SR:** State Rare (used for plants only); **SCE:** State Candidate for Endangered listing; **SCT:** State Candidate for Threatened listing; **CSC:** State Species of Special Concern.

CRPR - List 1A (Presumed extinct in CA); List 1B (Rare, threatened or endangered in California and elsewhere); List 2 (Presumed extinct in CA, but more common elsewhere); List 3 (We need more information about this plant); List 4 (Limited distribution (watch list)).

Occurrence Codes:

Confirmed Absent: Confirmed to be absent on the biological resources study area as a formal and/or practical matter. Typically based on results of focused surveys.

Less than Reasonable: Although occurrence may be remotely possible, the likelihood of occurrence is less than that required for any potentially applicable regulatory threshold. Further, the likelihood of meaningful value of the site to any population(s) of this taxon is less than reasonable.

Low: Occurrence of the species is reasonable but unlikely because of some combination of facts, for example: (1) the study area was the subject of unsuccessful searches conducted under relevant and reasonable circumstances, (2) potential habitat present is marginal or minimal in extent, (3) the best available information suggests the species is absent from the study area, and/or (4) available information sheds no clear light on the species likelihood on the study area, but it is known to be rare at best in the vicinity. Neither the species nor any indication of its presence was detected.

Moderate: The study area is within the range of the species, and contains potentially appropriate habitat. Neither individuals nor diagnostic sign were detected. It is nevertheless reasonable that some individuals may have been overlooked.

High: The study area is known to be within the range of the species, and contains potential habitat with a high likelihood of occupancy. Although no individuals or diagnostic sign were detected during current fieldwork by a qualified observer, it is likely that it is present to some degree given the best available information.

Confirmed Present: Confirmed present by a qualified biologist or other reliable source and there is no specific evidence that the species has subsequently become absent. Depending on the species and other information available, it may or may not be possible to determine what portions of the study area are currently in use without further studies.

3.12 Special-Status Wildlife

Of the 33 special-status animal species reviewed for potential occurrence, three special-status bat species, pallid bat (*Antrozous pallidus*), western yellow bat (*Lasiurus xanthinus*), and big free-tailed bat (*Nyctinomops macrotis*), were judged to have at least some reasonable potential for occurrence within the biological resources study area. The existing bridges over the Pacoima Wash, the Pacoima Diversion Canal, the East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118, Union Pacific Railroad (on Van Nuys Boulevard), and as well as adjacent vegetation (in particular, palm trees and trees with cavities, crevices, exfoliating bark, and bark fissures), may support special-status bat species roosting habitat. Refer to Figure 3-1 for representational photographs of potential roosting habitat observed within the biological resources study area.

The USFWS database has records of Santa Ana sucker (*Catostomus santaanae*) (federally threatened and state sensitive) (3.75 miles to the east), coastal California gnatcatcher (*Polioptila californica californica*) (federally threatened and state sensitive) (2.6 miles to the east), least Bell's vireo (*Vireo bellii pusillus*) (federally and state listed endangered) (1.62 miles to the east), and southwestern willow flycatcher (*Empidonax traillii extimus*) (federally and state listed endangered) (2.3 miles to the east), occurring within the Hansen Dam Recreational Area, which is outside the northeast portion of the biological resources study area. Also, within the Hansen Dam Recreational Area is USFWS designated critical habitat for the Santa Ana sucker. The USFWS and CNDDDB database also have records of least Bell's vireo (0.75 miles to the west) within the Sepulveda Dam Recreation Area, which is outside the southwest portion of the biological resources study area. Due to the urbanized conditions within the biological resources study area, habitat supporting these threatened and endangered species is not expected to occur.

The CNDDDB lists western pond turtle (*Emys marmorata*) (3.2 miles to the east), Sierra Madre yellow-legged frog (*Rana muscosa*) (4.6 miles to the east), arroyo chub (3.3 miles to the east), and Santa Ana speckled dace (*Rhinichthys osculus* ssp.) (3.3 miles to the east) as being present at the Hansen Dam Recreational Area, but they are not expected to occur in the Los Angeles River, the Pacoima Wash, the Pacoima Diversion Canal, and the East Canyon Creek because they are concrete-lined and do provide suitable habitat.

Table 3.2 lists the special-status wildlife species and their likelihood of occurrence in the biological resources study area. The determinations are based on a combination of factors (e.g., the species' requirements with respect to soils, hydrology, habitats, elevation range, and disturbance tolerance) along with consideration of biological resources study area conditions and observed resources.

Table 3-2: Special-Status Animal Species Potential for Occurrence in the Biological Resources Study Area

Special Status Wildlife	Habitat and Distribution	Status	Occurrence Probability	Comments
Invertebrates				
<i>Euphydryas editha quino</i> Quino checkerspot butterfly	Larval host plant almost exclusively <i>Plantago erecta</i> (Sandy, clay, or serpentine soils, grassy slopes and flats, open woodland). Adult individuals are dependent on a wide variety of native wildflowers.	Fed: END State: none	Confirmed absent	Site lacks suitable native vegetation communities and is outside of current known range for the species.
Fish				
<i>Catostomus santaanae</i> Santa Ana sucker	Endemic to Los Angeles Basin south coastal streams. Habitat generalist, but prefer sand-rubble-boulder bottoms, clear water, & algae.	Fed: THR State: None	Less than Reasonable	Not known to occur in the Los Angeles River and concrete channels do not provide suitable habitat.
<i>Gasterosteus aculeatus williamsoni</i> Unarmored threespine stickleback	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small southern California streams. Microhabitat: Cool (<24 C), clear water with abundant vegetation.	Fed: END State: END, FP	Less than Reasonable	Not known to occur in the Los Angeles River and concrete channels do not provide suitable habitat.
<i>Gila orcuttii</i> arroyo chub	Los Angeles basin south coastal streams. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation & associated invertebrates.	Fed: none State: CSC	Less than Reasonable	Not known to occur in the Los Angeles River and concrete channels do not provide suitable habitat.
<i>Oncorhynchus mykiss irideus</i> Southern steelhead – southern California DPS	Spend most of their adult lives in the ocean, but spawn in freshwater streams and rivers.	Fed: END State: CSC	Less than Reasonable	Not known to occur in the Los Angeles River.
<i>Rhinichthys osculus ssp. 3</i> Santa Ana speckled dace	Headwaters of the Santa Ana & San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20C. Usually inhabits shallow cobble & gravel riffles.	Fed: none State: CSC	Less than Reasonable	Outside of elevation range for the species and not known to occur in the Los Angeles River.

Special Status Wildlife	Habitat and Distribution	Status	Occurrence Probability	Comments
Amphibians				
<i>Bufo californicus</i> arroyo toad	Semi-arid regions near washes or intermittent streams, including valley-foothill & desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, & sycamores; loose, gravelly areas of streams in drier parts of range.	Fed: END State: none	Confirmed absent	The project site completely lacks potentially suitable habitat.
<i>Rana muscosa</i> Sierra Madre Yellow-legged Frog	Disjunct So. Cal. population persists as remnants in small streams in the San Gabriel, San Bernardino, and San Jacinto mountains; historical elevation range was about 370 to over 2290 m (1200-7500 ft), with remaining populations only toward the upper end of that range; inhabit varied lakes and streams, but avoid the smallest streams; show a tendency toward open stream and lakeshores that slope gently for the first 2 to 3 inches (5 - 8 cm) of depth; apparently rarely found far from water, though data on movements and ability to recolonize sites are lacking.	Fed: END State: CE, CSC	Confirmed absent	The project site completely lacks potentially suitable habitat.
<i>Spea hammondi</i> western spadefoot	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding & egg-laying.	Fed: none State: CSC	Less than Reasonable	Site lacks potential ponding features and grassland habitat.
<i>Taricha torosa torosa</i> coast range newt	Inhabits terrestrial habitats, but breed in ponds, reservoirs, and slow-moving streams.	Fed: none State: CSC	Less than Reasonable	Not known to occur in the Los Angeles River and concrete channels do not provide suitable habitat.
Reptiles				
<i>Actinemys marmorata pallida</i> southwestern pond turtle	Inhabits permanent or nearly permanent bodies of water in many habitat types; below 6000 ft elev. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks. Need suitable nesting sites.	Fed: none State: CSC	Low	Concrete channels do not provide suitable habitat. However, habitat approximately two miles upstream appears suitable.

Special Status Wildlife	Habitat and Distribution	Status	Occurrence Probability	Comments
<i>Anniella pulchra pulchra</i> silvery legless lizard	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Fed: none State: CSC	Less than Reasonable	No suitable open soils with native vegetation are present.
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	Inhabits low-elevation coastal scrub, chaparral, & valley-foothill hardwood habitats. Prefers washes & other sandy areas with patches of brush & rocks. Perennial plants necessary for its major food-termites.	Fed: none State: CSC	Less than Reasonable	No suitable native vegetation is present.
<i>Lampropeltis zonata (pulchra)</i> California mountain kingsnake (San Diego population)	Most populations are in coniferous or mixed coniferous-hardwood forests with considerable to abundant downed logs and/or slash. At lower elevations it is generally associated with various riparian woodlands connective to higher elevation forest. Some observations at lower elevations have been in narrow riparian bordered by chaparral or coastal sage scrub, but such animals may be only rare dispersants. Rocks and rocky outcrops appear to be an important habitat element.	Fed: none State: CSC	Less than Reasonable	Site lacks preferred rocky conditions and no suitable native vegetation is present.
<i>Phrynosoma blainvillei</i> coast horned lizard	Inhabits coastal sage scrub & chaparral in arid & semi-arid climate conditions. Critical factors are the presence of loose soils with a high sand fraction; an abundance of native ants or other insects, especially harvester ants (<i>Pogonomyrmex</i> spp.); and the availability of both sunny basking spots and dense cover for refuge.	Fed: none State: CSC	Less than Reasonable	Site lacks loose soils and no suitable native vegetation is present.
<i>Thamnophis hammondi</i> two-striped garter snake	It is often in water and rarely found far from it, though it is also known to inhabit intermittent streams having rocky beds bordered by willow thickets or other dense vegetation.	Fed: none State: CSC	Low	Concrete channels do not provide suitable habitat. However, habitat approximately two miles upstream appears suitable.

Special Status Wildlife	Habitat and Distribution	Status	Occurrence Probability	Comments
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	Highly colonial species, most numerous in central valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, foraging area with insect prey within a few km of the colony.	Fed: none State: CSC	Confirmed absent	No suitable nesting habitat is present.
<i>Athene cunicularia</i> burrowing owl	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Fed: none State: CSC	Less than Reasonable	Site lacks suitable foraging habitat due to heavy urbanization.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	Nests on barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, and river bars. In California, most breeding occurs on dune-backed beaches, barrier beaches, and salt-evaporation ponds; infrequently on bluff-backed beaches.	Fed: THR State: CSC	Less than Reasonable	No suitable beach or dune habitat is present.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	Inhabitant of extensive riparian forests; it has declined from a fairly common, local breeder in much of California sixty years ago, to virtual extirpation, with only a handful of tiny populations remaining in all of California today. Losses are tied to loss of nearly all suitable habitat, but other factors may also be involved. Relatively broad, well-shaded riparian forests are utilized, although it tolerates some disturbance.	Fed: FC State: END	Confirmed absent	No suitable nesting or foraging habitat is present.
<i>Elanus leucurus</i> white-tailed kite	Rolling foothills/valley margins w/scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Fed: none State: FP	Confirmed absent	No suitable nesting or foraging habitat is present

Special Status Wildlife	Habitat and Distribution	Status	Occurrence Probability	Comments
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	Riparian woodlands in southern California.	Fed: END State: END	Confirmed absent	No riparian habitat is present.
<i>Icteria virens</i> yellow-breasted chat	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages & nests within 10 feet of the ground.	Fed: none State: CSC	Confirmed absent	No riparian habitat is present.
<i>Polioptila californica californica</i> coastal California gnatcatcher	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California. Low, coastal sage scrub in arid washes, on mesas & slopes. Not all areas classified as coastal sage scrub are occupied.	Fed: THR State: CSC	Confirmed absent	No sage scrub habitat is present.
<i>Vireo bellii pusillus</i> least Bell's vireo	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite.	Fed: END State: END	Less than Reasonable	No riparian habitat is present.
Mammals				
<i>Euderma maculatum</i> spotted bat	Foraging habitat can include forest openings and subalpine mountain meadows in spruce, pine, and pinyon-juniper woodlands, large riverine/riparian areas, riparian habitat associated with small to mid-sized streams in narrow canyons, wetlands, meadows, and old agricultural fields. Dependent on large, isolated cliffs for roosting.	Fed: none State: CSC	Less than Reasonable as forager Less than Reasonable for roosting	Foraging not expected due to lack of proximity to cliffs, the required roost feature for this species.
<i>Lasiurus xanthinus</i> western yellow bat	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Fed: none State: CSC	Moderate as forager Moderate for roosting	Foraging conditions present along wetted drainage channels; potential roosting sites are present, such as palm trees.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges. Coastal sage scrub habitats in Southern California.	Fed: none State: CSC	Less than Reasonable	No suitable sage scrub or grassland habitat is present.

Special Status Wildlife	Habitat and Distribution	Status	Occurrence Probability	Comments
<i>Microtus californicus stephensi</i> south coast marsh vole	Tidal marshes in Los Angeles, Orange, and southern Ventura counties.	Fed: none State: CSC	Less than Reasonable	No suitable tidal marsh habitat is present.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	Habitats for this subspecies are dry and/or sunny shrublands, especially (but not requiring) areas with cactus and abundant rocks and crevices.	Fed: none State: CSC	Less than Reasonable	No suitable sage scrub habitat or rocks/crevices are present.
<i>Nyctinomops macrotis</i> big free-tailed bat	Mainly an inhabitant of lowlands in rugged, rocky habitats in arid landscapes. It has been found in a variety of plant associations, including desert shrub, woodlands, and evergreen forests. It roosts mainly in the crevices of rocks in cliff situations, although there is some documentation of roosting in buildings, caves, and tree cavities. Forages almost entirely on large moths, but with occasional foraging on other insects.	Fed: none State: CSC	Low as forager Low for roosting	Rugged, rocky habitats not within area of project. Undersides of bridges that cross drainages were inspected for potential crevices and cracks for roosting and none were observed.
<i>Onychomys torridus ramona</i> southern grasshopper mouse	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.	Fed: none State: CSC	Less than Reasonable	No suitable scrub habitat is present.
<i>Taxidea taxus</i> American badger	Most abundant in drier open stages of most shrub, forest, & herbaceous habitats, with friable soils. Need sufficient food, friable soils & open, uncultivated ground. Prey on burrowing rodents. Dig burrows.	Fed: none State: CSC	Less than Reasonable	Urbanized area would preclude the species from the biological resources study area

Special Status Vegetation Communities	Conservation Status	Occurrence Probability
Southern California Threespine Stickleback Stream	CNDDDB	Confirmed Absent
Southern California Arroyo Chub/Santa Ana Sucker Stream	CNDDDB	Confirmed Absent
Riversidian Alluvial Fan Sage Scrub	CNDDDB	Confirmed Absent
Southern Coast Live Oak Riparian Forest	CNDDDB	Confirmed Absent
Southern Cottonwood Willow Riparian Forest	CNDDDB	Confirmed Absent
Southern Mixed Riparian Forest	CNDDDB	Confirmed Absent
Southern Sycamore Alder Riparian Woodland	CNDDDB	Confirmed Absent
Southern Riparian Scrub	CNDDDB	Confirmed Absent
Southern Willow Scrub	CNDDDB	Confirmed Absent
Valley Oak Woodland	CNDDDB	Confirmed Absent
California Walnut Woodland	CNDDDB	Confirmed Absent
Mainland Cherry Forest	CNDDDB	Confirmed Absent
Status Codes:		
<p>END: Federally Endangered; THR: Federally Threatened; FPE: Federally proposed Endangered; FPT: Federally proposed Threatened; FC: Federal Candidate species; SE: State Endangered; ST: State Threatened; SR: State Rare (used for plants only); SCE: State Candidate for Endangered listing; SCT: State Candidate for Threatened listing; CSC: State Species of Special Concern.</p>		
Occurrence Codes:		
<p>Confirmed Absent: Confirmed to be absent on the study area as a formal and/or practical matter. Typically based on results of focused surveys.</p>		
<p>Less than Reasonable: Although occurrence may be remotely possible, the likelihood of occurrence is less than that required for any potentially applicable regulatory threshold. Further, the likelihood of meaningful value of the site to any population(s) of this taxon is less than reasonable.</p>		
<p>Low: Occurrence of the species is reasonable but unlikely because of some combination of facts, for example: (1) the study area was the subject of unsuccessful searches conducted under relevant and reasonable circumstances, (2) potential habitat present is marginal or minimal in extent, (3) the best available information suggests the species is absent from the study area, and/or (4) available information sheds no clear light on the species likelihood on the study area, but it is known to be rare at best in the vicinity. Neither the species nor any indication of its presence was detected.</p>		
<p>Moderate: The study area is within the range of the species, and contains potentially appropriate habitat. Neither individuals nor diagnostic sign were detected. It is nevertheless reasonable that some individuals may have been overlooked.</p>		
<p>High: The study area is known to be within the range of the species, and contains potential habitat with a high likelihood of occupancy. Although no individuals or diagnostic sign were detected during current fieldwork by a qualified observer, it is likely that it is present to some degree given the best available information.</p>		
<p>Confirmed Present: Confirmed present by a qualified biologist or other reliable source and there is no specific evidence that the species has subsequently become absent. Depending on the species and other information available, it may or may not be possible to determine what portions of the study area are currently in use without further studies.</p>		

Chapter 4

Environmental Consequences/ Environmental Impacts

4.1 Operational Impacts

This impact analysis evaluates the operational effects of project implementation on biological resources that occur in the project study area.

4.1.1 No-Build Alternative

The No-Build Alternative represents projected conditions without implementation of the project. Because no new transportation infrastructure would be built within the project study area with exception of those projects already planned, programmed, and funded, implementation of the No-Build Alternative would not cause new impacts to the ecosystem and changes to existing conditions. Under CEQA, no operational impacts to biological resources would occur. Because there would be no change in the existing environment, for the purposes of NEPA, this alternative would have no adverse effect on biological resources within the biological resources study area.

4.1.2 Transportation System Management (TSM) Alternative

The TSM Alternative emphasizes transportation systems upgrades, which may include relatively low-cost transit service improvements. Implementation of this alternative would not result in new impacts to the ecosystem because no construction would take place that would alter the existing biological environment. Under CEQA, no operational impacts to biological resources would occur. Because there would be no change in the existing environment, for the purposes of NEPA, this alternative would have no adverse effect on biological resources within the biological resources study area.

4.1.3 Build Alternative 1 – Curb-Running (BRT) Alternative

The Curb-Running BRT Alternative proposes the conversion of existing curb lanes to dedicated curb-running bus lanes. This alternative would also include upgrades to all currently existing Metro Rapid Bus stops (18 in total) including stops at the Sylmar/San Fernando Metrolink station and Metro Orange Line Van Nuys station. Upgrades would consist of canopies installed at each location and modification to the bus stop lengths. Because the project is planned within an existing urban neighborhood and regional commercial setting, and wildlife species in the area are urban-tolerant, operation of this alternative would result in no impact under CEQA and no effect under NEPA on biological resources in the study area.

4.1.4 Build Alternative 2 – Median-Running BRT Alternative

The Median-Running BRT Alternative would construct a dedicated median alignment, which would remove existing median islands from San Fernando Road in the north and the Metro Orange Line in the south. This alternative would include new construction or upgrades to all currently existing Metro Rapid Bus stops (5 along the Truman Street and San Fernando Road segment and 12 along the Van Nuys Boulevard segment) including stops at the Sylmar/San Fernando Metrolink station and Metro Orange Line Van Nuys station. Upgrades would consist of road widening, construction of bus stop platforms, and installation of bus stop canopies. This alternative does not propose the construction of a new maintenance and storage facility (MSF). Because the project is planned within an existing urban setting and wildlife species in the area are urban-tolerant, operation of this alternative would result in no impacts under CEQA and no effect under NEPA on biological resources in the study area.

4.1.5 Build Alternative 3 – Low-Floor LRT/Tram Alternative

The Low-floor LRT/Tram Alternative would construct a dedicated median alignment, which would remove existing median islands. The alignment would extend from San Fernando Road in the north to the Metro Orange Line in the south. As proposed, approximately 28 new Low-Floor LRT/Tram stations would be constructed under this alternative. A new MSF would be constructed (at one of three potential locations), as well as Low-Floor LRT/Tram signals and TPSSs. Operation of proposed facilities, including the MSF and TPSSs, would generally result in no impacts under CEQA and no effects under NEPA on biological resources in the study area. However, the overhead catenary system lines for the Low-Floor LRT/Tram Alternative would affect avian species by potentially increasing line collisions and electrocution risks. In addition, increased noise, motion and vibration could potentially affect bat roosts on the underside of the bridge crossings over the Pacoima Wash, Pacoima Diversion Canal, East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118, and Union Pacific Railroad (on Van Nuys Boulevard). However, because the project is planned within an existing urban setting and wildlife species in the area are urban-tolerant, the overhead contact system lines and train operations would have a less-than-significant impact on common bird species and bat roosts under CEQA and a minor adverse effect under NEPA.

4.1.6 Build Alternative 4 – LRT Alternative

The LRT Alternative would construct a dedicated median alignment, which would remove existing median islands. The LRT alignment would extend from San Fernando Road in the north to the Metro Orange Line in the south. As proposed, approximately 14 new LRT stations would be constructed for this alignment. Three underground stations would be constructed at Sherman Way, Van Nuys Boulevard, and Roscoe Boulevard, respectively. A new MSF would be constructed (at one of three potential locations) as well as LRT signals and seven TPSSs. This alternative includes the replacement of two bridges; one where Van Nuys Boulevard crosses the Pacoima Diversion Canal, and one where San Fernando Road crosses the Pacoima Diversion Canal. The operation of proposed facilities, including the MSF and TPSSs, would result in no impacts under CEQA and no effects under NEPA on biological resources. However, installation of the overhead catenary system lines for the LRT Alternative would potentially have an impact on avian species by increasing line collisions and electrocution risks. In addition, increased noise, motion, and vibration from LRT vehicles could potentially affect bat roosts on the underside of the bridge crossings over the Pacoima Wash, Pacoima Diversion Canal, East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118,

and Union Pacific Railroad (on Van Nuys Boulevard). However, because the project is planned within an existing urban neighborhood and regional commercial setting, and wildlife species in the area are urban-tolerant, the overhead contact system lines and LRT operations would result in less-than-significant impacts to common bird species and bats under CEQA and minor adverse effects under NEPA.

4.2 Construction Impacts

This impact analysis evaluates direct and indirect effects of project construction on biological resources. Direct impacts typically represent the physical alteration (i.e., habitat degradation or loss, species mortality) of biological conditions that would occur on site due to project construction. Indirect impacts are those reasonably foreseeable effects on remaining or adjacent biological resources that would be caused by the project's construction.

4.2.1 No-Build Alternative

The No-Build Alternative represents projected conditions without implementation of the project. Since no construction is proposed under this alternative, it would not result in changes to the environment and; therefore, no impacts under CEQA and no effects under NEPA to biological resources would occur.

4.2.2 Transportation Systems Management (TSM) Alternative

The TSM Alternative proposes transportation systems upgrades, which may include relatively low-cost transit service improvements. No or minimal construction is anticipated under this alternative. Therefore, no construction impacts under CEQA and no effects under NEPA on biological resources would occur.

4.2.3 Build Alternative 1 – Curb-Running BRT Alternative

4.2.3.1 Special-status Species

The Curb-Running BRT Alternative could potentially result in impacts on CDFW or USFWS candidate, sensitive, or special-status species or reduce the number, or restrict the range of endangered, rare, or threatened species, or reduction of existing habitat, as discussed below.

Special-status Plants

Because the project area is already disturbed due to urban development and infrastructure including sidewalks, buildings, roadways, parking areas, retail businesses, etc., the site currently possesses almost no value to special-status plant species. No special-status plant species, as documented in Table 3-1 above, are expected to occur within the biological resources study area. Therefore, construction of the Curb-Running BRT Alternative would have no impact and no effect on special-status plants.

Special-status Animals

There is a potential for pallid bat (*Antrozous pallidus*), western yellow bat (*Lasiurus xanthinus*), and big free-tailed bat (*Nyctinomops macrotis*) to occur in the biological resources study area. No bats or signs of bats (i.e., urine staining and guano droppings) were visually observed at the time of the site visits; however, it should be noted that specific focused surveys for bats were not conducted. The existing bridges over the Pacoima Wash, the Pacoima Diversion Canal, the East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118, and Union Pacific Railroad (on Van Nuys Boulevard), and adjacent vegetation (in particular, palm trees and trees with cavities, crevices, exfoliating bark, and bark fissures), may support special-status bat species roosting habitat. Construction activities that could affect these structures and adjacent vegetation could disturb or destroy bat roost sites, a potentially significant impact under CEQA and adverse effect under NEPA.

Implementation of Mitigation Measure 5.0.1 would reduce the impact or effect on bats due to removal of trees occupied by roost sites or removal of other roosting habitat to a less-than-significant level under CEQA and minor adverse under NEPA.

Migratory Bird Treaty Act/California Department of Fish and Wildlife: Fish and Game Code

Although there is a lack of natural plant communities within the biological resources study area, the ornamental landscaping, including mature trees, provides marginal foraging and nesting habitat for a small number of small mammals, reptiles, and invertebrates. The ornamental landscaping could provide a source of prey for a variety of common and special-status birds (including passerines and both local and wintering raptors) and large mammal species.

The biological resources study area supports nesting birds throughout the urban landscape. As currently proposed, this alternative would include upgrades to all existing Metro Rapid Bus stops (18 in total) including stops at the Sylmar/San Fernando Metrolink station and Metro Orange Line Van Nuys station. Upgrades would consist of bus stop canopies installed at each location that would be approximately 13 feet in height. Modifications to bus stop lengths are also proposed and the modified bus stops would range between 80 feet and 150 feet in length. If proposed improvements under this alternative require removal of vegetation where there are nesting birds present, a violation of the Migratory Bird Treaty Act and/or Fish and Game Code, which protect nesting birds, could occur. To ensure compliance with the Migratory Bird Treaty Act and Fish and Game Code, Mitigation Measure 5.0.2 is proposed. The biological impact/effect of lost nests for common urban bird species would be less than significant under CEQA and minor adverse under NEPA.

4.2.3.2 Riparian Habitat or Sensitive Natural Community

No riparian habitat or sensitive natural communities occur within the biological resources study area. Therefore, implementation of the proposed Curb-Running BRT Alternative would not have an impact/effect on riparian habitat or sensitive natural communities under CEQA or NEPA.

4.2.3.3 Jurisdictional Waters

Three jurisdictional drainages, the Pacoima Wash, the Pacoima Diversion Canal, and East Canyon Creek all occur within the proposed alignment for the Curb-Running BRT Alternative. Under this alternative, only street level modifications would be made along the existing roads. No work, including reinforcement of structures, would be needed at the bridges. Therefore, implementation of this alternative would not directly affect a federal or state jurisdictional drainage under CEQA or NEPA. However, please see Mitigation Measure 5.0.3 for best management practices that are proposed when working near jurisdictional drainages to avoid or minimize potential indirect effects.

4.2.3.4 Wildlife Corridors

The Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek are concrete channel waterways, which are typically considered to be potential wildlife movement corridors. No construction activities are proposed in the channels that would block movement through the area; therefore, no impact/affect to wildlife movement would occur under CEQA or NEPA.

4.2.3.5 Conflict with Local Policies

Two tree species that occur in the biological resources study area are protected under the City of Los Angeles Tree Ordinance 177404: coast live oak and western sycamore. The City of San Fernando Comprehensive Tree Management Program Ordinance (Ordinance No. 1539) does not specify “protected” trees as does the City of Los Angeles. However, Ordinance No. 1539 does require prior consultation with the public works director regarding removal or trimming of “City-owned trees,” which are any trees on public property.

The Curb-Running BRT alternative proposes construction of canopy upgrades to the Sylmar/ San Fernando Metrolink station and installation of bus stop canopies on Truman Street at Maclay Avenue and at Hubbard Avenue. Construction of new canopies could potentially require the removal of trees protected by the City of Los Angeles and/or City of San Fernando tree ordinances. Removal of protected trees would conflict with the City ordinances, which would be a significant impact under CEQA and adverse effect under NEPA. If protected trees are to be removed, implementation of Mitigation Measure 5.0.4 would be required to ensure compliance with City ordinances. The biological consequence of removing or trimming urban trees would be less than significant under CEQA and a minor adverse effect under NEPA with implementation of Mitigation Measure 5.0.4.

4.2.3.6 Conflict with Conservation Plans

The biological resources study area does not overlap with any adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan. Therefore, implementation of the proposed Curb-Running BRT Alternative would not affect any adopted plan and no impact/effect would occur under CEQA or NEPA.

4.2.4 Build Alternative 2 –Median-Running BRT Alternative

4.2.4.1 Special-status Species

Impacts from the Median-Running BRT Alternative would be similar in nature as those under the Curb-Running BRT Alternative above. Thus, similar to the Curb-Running BRT Alternative, the Median-Running BRT Alternative would not result in impacts to or effects on any special-status plant species. The Median-Running BRT Alternative would construct BRT lanes along a dedicated median alignment, which would require removal of existing median islands, road widening in other areas, and construction of new bus stop canopies, some of which have trees potentially used by nesting birds and/or bat species. Construction activities would also result in increases in noise, movement, and vibration at the bridges over the Pacoima Wash, the Pacoima Diversion Canal, the East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118, and Union Pacific Railroad (on Van Nuys Boulevard). Similar to the Curb-Running BRT Alternative, this alternative could result in potentially significant

impacts under CEQA and adverse effects under NEPA to nesting birds or roosting bats due to construction activities that would remove vegetation or affect structures used by special-status bat species. However, Mitigation Measures 5.01 and 5.02 would reduce potential impacts to less than significant under CEQA and minor adverse under NEPA.

4.2.4.2 Riparian Habitat or Sensitive Natural Community

No riparian habitat or sensitive natural communities occur within the biological resources study area; therefore, similar to the Curb-Running BRT Alternative, this alternative would not have an impact/effect on riparian habitat or sensitive natural communities under CEQA and NEPA.

4.2.4.3 Jurisdictional Waters

Three jurisdictional drainages, the Pacoima Wash, the Pacoima Diversion Canal, and East Canyon Creek all occur within the proposed alignment for the Curb-Running BRT Alternative. Under this alternative, only street level modifications would be made along the existing roads. No work, including reinforcement of structures, would be needed at the bridges. Therefore, implementation of this alternative would not directly affect a federal or state jurisdictional drainage under CEQA or NEPA. However, please see Mitigation Measure 5.0.3 for best management practices that are proposed when working near jurisdictional drainages to avoid or minimize potential indirect effects.

4.2.4.4 Wildlife Corridors

The Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek are concrete channel waterways, which are typically considered to be potential wildlife movement corridors. No construction activities are proposed in the channels that would block movement through the area; therefore, no impact/affect to wildlife movement would occur under CEQA or NEPA.

4.2.4.5 Conflict with Local Policies

The Median-Running BRT Alternative would require the removal of trees. Removal of any protected trees would conflict with City ordinances, which would be a potentially significant impact under CEQA and an adverse effect under NEPA. If protected trees are removed, implementation of Mitigation Measure 5.0.4 would be required to ensure compliance with City ordinances. The biological consequence of removing or trimming urban trees would be less than significant under CEQA and a minor adverse effect under NEPA with implementation of Mitigation Measure 5.0.4.

4.2.4.6 Conflict with Conservation Plans

The biological resources study area does not overlap with any adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan. Therefore, implementation of the proposed Median-Running BRT Alternative would not affect any adopted plan and no impact/effect would occur under CEQA or NEPA.

4.2.5 Build Alternative 3 – Low-floor LRT/Tram Alternative

4.2.5.1 Special-status Species

The Median-Running BRT Alternative could potentially result in impacts on CDFW or USFWS candidate, sensitive, or special-status species or substantially reduce the number, or restrict the range of endangered, rare, or threatened species, or reduction of existing habitats.

Impacts from the Low-Floor LRT/Tram Alternative would be similar in nature to those under the Curb-Running and Median-Running BRT Alternatives. The Low-Floor LRT/Tram Alternative alignment would be constructed mostly within a dedicated median, which would require removal of existing median islands, road widening in other areas, and construction of new bus stop canopies, some of which have trees potentially used by nesting birds and/or bat species. Construction would also result in increased noise, movement, and vibration at the bridges over the Pacoima Wash, the Pacoima Diversion Canal, the East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118, and Union Pacific Railroad (on Van Nuys Boulevard). A MSF would also be constructed under this alternative (at one of three alternate sites under consideration). Construction of the MSF could potentially affect nesting birds and/or tree roosting bats if trees are to be removed to make way for the new MSF structures.

Similar to the BRT alternatives, this alternative could result in potentially significant impacts under CEQA and adverse effects under NEPA to nesting birds or roosting bats if construction activities remove vegetation used by nesting birds or affect structures or vegetation used by special-status bat species. However, Mitigation Measures 5.01 and 5.02 would reduce potential impacts to less than significant under CEQA and minor adverse under NEPA.

4.2.5.2 Riparian Habitat or Sensitive Natural Community

No riparian habitat or sensitive natural communities occur within the biological resources study area. Therefore, construction of this alternative would not have an impact/effect on riparian habitat or sensitive natural communities under CEQA or NEPA.

4.2.5.3 Jurisdictional Waters

Three jurisdictional drainages, the Pacoima Wash, the Pacoima Diversion Canal, and East Canyon Creek all occur within the proposed alignment for the Curb-Running BRT Alternative. Under this alternative, only street level modifications would be made along the existing roads. No work, including reinforcement of structures, would be needed at the bridges. Therefore, implementation of this alternative would not directly affect a federal or state jurisdictional drainage under CEQA or NEPA. However, please see Mitigation Measure 5.0.3 for best management practices that are proposed when working near jurisdictional drainages to avoid or minimize potential indirect effects.

4.2.5.4 Wildlife Corridors

The Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek are concrete channel waterways, which are typically considered to be potential wildlife movement corridors. No construction activities are proposed in the channels that would block movement through the area; therefore, no impact/affect to wildlife movement would occur under CEQA or NEPA.

4.2.5.5 Conflict with Local Policies

The Low-Floor LRT/Tram Alternative, similar to the Median-Running BRT Alternative, would require the removal of trees. Removal of any protected trees would conflict with City ordinances, which would be a potentially significant impact under CEQA and an adverse effect under NEPA. If protected trees are removed, implementation of Mitigation Measure 5.0.4 would be required to ensure compliance with City ordinances. The biological consequence of removing or trimming urban trees would be less than significant under CEQA and a minor adverse effect under NEPA with implementation of Mitigation Measure 5.0.4.

4.2.5.6 Conflict with Conservation Plans

The biological resources study area does not overlap with any adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan. Therefore, the Low-Floor LRT/Tram Alternative would not conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.2.6 Build Alternative 4 – LRT Alternative

4.2.6.1 Special-status Species

The LRT Alternative could potentially result in impacts on CDFW or USFWS candidate, sensitive, or special-status species or substantially reduce the number, or restrict the range of endangered, rare, or threatened species, or reduction of existing habitats.

Impacts from the LRT alternative would be similar to those under the Median-Running BRT and Low-Floor LRT/Tram Alternatives. The LRT Alternative alignment would be constructed primarily within a dedicated median alignment, which would require removal of existing median islands, road widening in other areas, construction of new bus stop canopies, some of which have trees potentially used by nesting birds and/or bat species.

Two bridge upgrades are proposed for the LRT Alternative. One bridge at Van Nuys Boulevard where it crosses over the Pacoima Diversion Canal, and one at San Fernando Road as it crosses over the Pacoima Diversion Canal. The existing bridges could potentially be used by nesting birds and/or bat species. Construction would also result in increases in noise, movement, and vibration at the bridges over the Pacoima Wash, the Pacoima Diversion Canal, the East Canyon Creek, and the existing overpasses for the I-5 freeway, State Route 118, and Union Pacific Railroad (on Van Nuys Boulevard).

A MSF would also be constructed under this alternative (at one of three alternate sites under consideration). Construction of the MSF could potentially affect nesting birds and/or tree roosting bats if trees are to be removed to make way for the new MSF structures. In addition, three underground stations would be constructed at Sherman Way, Van Nuys Boulevard, and Roscoe Boulevard, respectively. No impacts to biological resources are anticipated for the underground segment of this Alternative.

Similar to the BRT alternatives and the Low-Floor LRT/Tram Alternative, this alternative could result in potentially significant impacts under CEQA and adverse effects under NEPA to nesting birds or roosting bats if construction activities remove vegetation used by nesting birds or affect structures or vegetation used by special-status bat species. However, Mitigation Measures 5.01 and 5.02 would reduce potential impacts to less than significant under CEQA and minor adverse under NEPA.

4.2.6.2 Riparian Habitat or Sensitive Natural Community

No riparian habitat or sensitive natural communities occur within the biological resources study area. Therefore, construction of this alternative would not have an impact/effect on riparian habitat or sensitive natural communities under CEQA or NEPA.

4.2.6.3 Jurisdictional Waters

Two bridge upgrades are proposed under the LRT Alternative; both cross over the Pacoima Diversion Canal and are located at Van Nuys Boulevard and San Fernando Road. As a consequence, this alternative could potentially affect WoUS, WoS, and CDFW jurisdictional streambeds. Project-related impacts on WoUS would require permitting under Section 404 of the Clean Water Act (CWA), likely in the form of a Nationwide Permit 14 if project-related impacts to WoUS are less than 0.5 acre. Impacts to WoUS/WoS would also trigger the need for a Section 401 Certification, issued by the RWQCB. Acquisition of these permits would ensure compliance with CWA (Section 401 and 404). A streambed Alteration Agreement, as regulated by Section 1602 of the California Fish and Game Code, would be required for project-related impacts to CDFW-jurisdictional streambed.

If permanent impacts to WoUS/WoS and CDFW unvegetated streambeds are unavoidable, compensatory mitigation may be required under section 401 and 404 of the CWA and Section 1602 of the California Fish and Game Code. This is expected to be required at a minimum 1:1 ratio. Final compensatory mitigation will be determined during the aquatic permitting process. In addition, temporary impacts would be required to be restored to pre-project conditions at the location of these impacts. Impacts to WoUS/WoS and CDFW streambeds would be less than significant under CEQA and minor adverse under NEPA after compliance with regulatory permit requirements.

4.2.6.4 Wildlife Corridors

The LRT Alternative, as discussed above, includes improvements to two bridges over the Pacoima Diversion Canal, which could affect jurisdictional waters and streambeds. Since concrete channel waterways are considered to be potential wildlife movement corridors, construction activities in these channels may affect wildlife movement. However, given the area immediately adjacent to the channels as well as the surrounding areas are developed with urban uses and because of the lack of natural habitat in the vicinity, it's not expected that the channels serve as a significant wildlife corridor. Therefore, the LRT Alternative, similar to the Low-Floor LRT/Tram and Median-Running BRT Alternatives, would not substantially interfere with the movement of resident or migratory fish or wildlife species, or with established resident or migratory wildlife corridors, or impede use as a wildlife nursery site. Potential impacts would be less than significant under CEQA and minor adverse under NEPA.

4.2.6.5 Conflict with Local Policies

The LRT Alternative, similar to the Median-Running BRT Alternative and Low-Floor LRT/Tram Alternative, would require the removal of trees. Removal of any protected trees would conflict with City ordinances, which would be a potentially significant impact under CEQA and an adverse effect under NEPA. If protected trees are removed, implementation of Mitigation Measure 5.0.4 would be required to ensure compliance with City ordinances. The biological consequence of removing or trimming urban trees would be less than significant under CEQA and a minor adverse effect under NEPA with implementation of Mitigation Measure 5.0.4.

4.2.6.6 Conflict with Conservation Plans

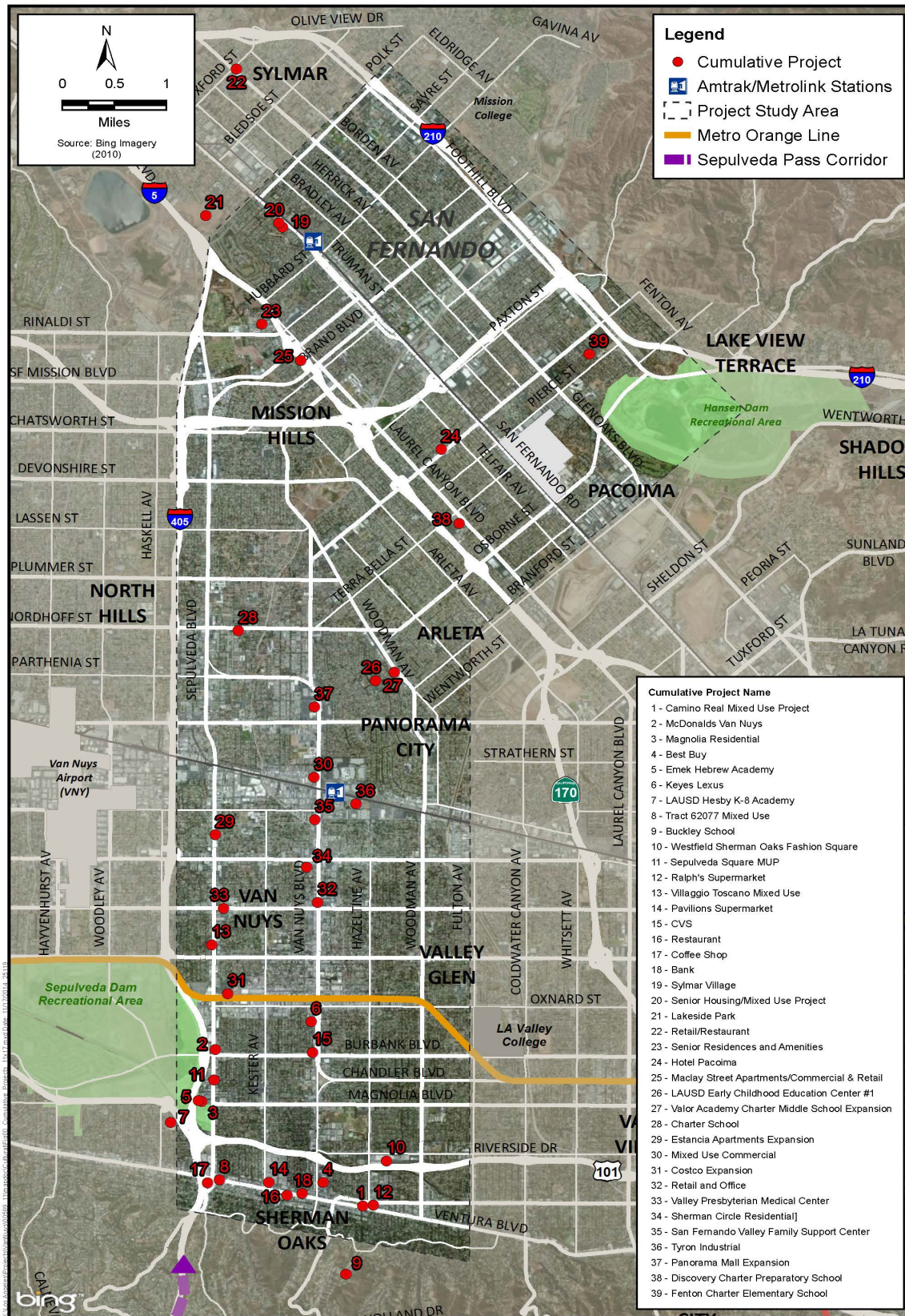
The biological resources study area does not overlap with any adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan. Therefore, the LRT Alternative would not conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3 Cumulative Impacts

Cumulative impacts are defined in CEQA, as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (State CEQA Guidelines Section 15355). Stated in another way, “a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing relating impacts” (State CEQA Guidelines Section 15130 (a)(1)). The cumulative impacts analysis can consider either a “list of past, present, and probable future projects producing related or cumulative impacts,...”(Section 15130 (b)(1)) or “a summary of projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Previously approved land use documents, including but not limited to general plans, specific plans, regional transportation plans, plans for the reduction of greenhouse gas emissions, and local coastal plans may be used in cumulative impact analysis. The cumulative impacts analysis below is based on the related projects list. Figure 4-1 shows the locations of the related projects and generally defines the study area for the ecosystems/biological resources cumulative impacts discussion.

Implementation of the build alternatives would have limited adverse effects on the diversity and abundance of native flora and fauna in the region (the No-Build Alternative and TSM Alternative would have no impacts on biological resources and consequently they would not contribute to any cumulative biological resources impacts). The biological resources study area supports only marginally suitable foraging, nesting, and roosting habitat for wildlife species. The biological resources study area has no potential to support a high diversity of native plants. Most wildlife species that could be expected to use the project site are species that are adapted to urban environments and disturbances caused by human-induced activities. Additionally, any biological resources impacts due to the build alternatives would be mitigated with implementation of the mitigation measures identified below. The related projects shown in Figure 4-1 are also expected to result in no or minimal impacts to biological resources for similar reasons. As a consequence, implementation of the build alternatives would not result in or contribute to significant cumulative impacts to regional flora and fauna.

Figure 4-1: Locations of Related Projects



Chapter 5

Mitigation Measures

The following mitigation measures are recommended to avoid, minimize, or reduce potentially significant impacts to biological resources. These measures would reduce potential project impacts to biological resources to a less-than-significant level, and minimize the potential to violate state and federal laws and regulations protecting certain wildlife species.

MM 5.0.1: Avoid and minimize project related impact to special-status bat species

In the maternity season (April 15 through August 31) prior to the commencement of construction activities, a field survey shall be conducted by a qualified biologist to determine the potential presence of colonial bat roosts (including palm trees) on or within 100 feet of the project boundaries. Should a potential roost be identified that will be affected by proposed construction activities, a visual inspection and/or one-night emergence survey shall be used to determine if it is being used as a maternity-roost.

To avoid any impacts on roosting bats resulting from construction activities, the following measure shall be implemented:

Bridges and Overpasses

- Should potential bat roosts be identified that will require removal, humane exclusionary devices shall be used. Instillation would occur outside of the maternity season and hibernation period (February 16-April 14 and August 16-October 30, or as determined by a qualified biologist) unless it has been confirmed as absent of bats. If the roost has been determined to have been used by bats, the creation of alternate roost habitat shall be required, with CDFW consultation. The roost shall not be removed until it has been confirmed by a qualified biologist that all bats have been successfully excluded.
- Should an active maternity roost be identified, a determination (in consultation with the California Department of Fish and Wildlife or a qualified bat expert) shall be made whether indirect effects of construction-related activities (i.e., noise and vibration) could substantially disturb roosting bats. This determination shall be based on baseline noise/vibrations levels, anticipated noise-levels associated with construction of the proposed project, and the sensitivity to noise-disturbances of the bat species present. If it is determined that noise could result in the temporary abandonment of a day-roost, construction-related activities shall be scheduled to avoid the maternity season (April 15 through August 31), or as determined by the biologist.

Trees

All trees to be removed as part of the project should be evaluated for their potential to support bat roosts. The following measures would apply to trees to be removed that are determined to provide potential bat roost habitat by a qualified biologist.

- If trees with colonial bat roost potential require removal during the maternity season (April 15 through August 31), a qualified bat biologist shall conduct a one-night emergence survey during acceptable weather conditions (no rain or high winds, night temperatures above 52°F) or if conditions permit, physically examine the roost for presence or absence of bats (such as

- with lift equipment) before the start of construction/removal. If the roost is determined to be occupied during this time, the tree shall be avoided until after the maternity season when young are self-sufficiently volant.
- If trees with potential colonial bat roost potential require removal during the winter months when bats are in torpor, a state in which the bats have significantly lowered their physiological state, such as body temperature and metabolic rate, due to lowered food availability. (October 31 through February 15, but is dependent on specific weather conditions), a qualified bat biologist shall physically examine the roost if conditions permit for presence or absence of bats (such as with lift equipment) before the start of construction. If the roost is determined to be occupied during this time, the tree shall be avoided until after the winter season when bats are once again active.
 - Trees with potential colonial bat habitat can be removed outside of the maternity season and winter season (February 16 through April 14 and August 16 through October 30, or as determined by a qualified biologist) using a two-step tree trimming process that occurs over 2 consecutive days. On Day 1, under the supervision of a qualified bat biologist, Step 1 shall include branches and limbs with no cavities removed by hand (e.g., using chainsaws). This will create a disturbance (noise and vibration) and physically alter the tree. Bats roosting in the tree will either abandon the roost immediately (rarely) or, after emergence, will avoid returning to the roost. On Day 2, Step 2 of the tree removal may occur, which would be removal of the remainder of the tree. Trees that are only to be trimmed and not removed would be processed in the same manner; if a branch with a potential roost must be removed, all surrounding branches would be trimmed on Day 1 under supervision of a qualified bat biologist and then the limb with the potential roost would be removed on Day 2.
 - Trees with foliage (and without colonial bat roost potential), such as sycamores, that can support lasiurine bats, shall have the two-step tree trimming process occur over one day under the supervision of a qualified bat biologist. Step 1 would be to remove adjacent, smaller, or non-habitat trees to create noise and vibration disturbance that would cause abandonment. Step 2 would be to remove the remainder of tree on that same day. For palm trees that can support western yellow bat (the only special-status lasiurine species with the potential to occur in the project area), shall use the two-step tree process over two days. Western yellow bats may move deeper within the dead fronds during disturbance. The two-day process will allow the bats to vacate the tree before removal.

MM 5.0.2: Avoid impacts to nesting birds (including raptors)

To avoid any impacts on migratory birds, resulting from construction activities that may occur during the nesting season, March 1 through August 31, the following measure shall be implemented:

- A qualified biologist shall conduct a preconstruction survey of the proposed construction alignment with a 150-foot buffer for passerines and 500-feet for raptors around the site. This preconstruction survey shall commence no more than 3 days prior to the onset of construction, such as clearing and grubbing and initial ground disturbance.
- If a nest is observed, an appropriate buffer shall be established, as determined by a qualified biologist, based on the sensitivity of the species. For nesting raptors, the minimum buffer shall be 150 feet. The contractor shall be notified of active nests and directed to avoid any activities within the buffer zone until the nests are no longer considered to be active by the biologist.

MM 5.0.3: Jurisdictional Waters

Any work resulting in materials that could potentially be discharged into jurisdictional features shall adhere to strict Best Management Practices (BMP) to prevent potential pollutants from entering any jurisdictional feature. Applicable BMPs to be applied shall be included in the Stormwater Pollution Prevention Plan and/or Water Quality Management Plan.

MM 5.0.4: A project tree report shall be approved by the City of Los Angeles and City of San Fernando

Prior to construction, the contractor shall review the approved alternative alignment to determine whether any trees protected by the City of Los Angeles Tree Ordinance 177404 and City of San Fernando Comprehensive Tree Management Program Ordinance (Ordinance No. 1539) will be removed or trimmed. A tree report must be prepared, by a qualified arborist, for the project and approved by each City. Trees approved for removal (or replacement) shall be done in accordance to the specifications outlined in the City ordinances.

Chapter 6

Impacts Remaining After Mitigation

With the implementation of Mitigation Measures MM 5.0.1 through MM 5.0.4 as described above, no significant or unavoidable impacts related to biological resources would occur.

Chapter 7

CEQA Determination

Biological resources impacts would be less than significant following implementation of mitigation measures.

Chapter 8 References

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U.S. Fish and Wildlife Service. 2013. Carlsbad office database of threatened and endangered species. March 5.

Personal Communication

Ruiz, Ron. Public Works Director, City of San Fernando. March 26, 2013—email.

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
Coastal California Gnatcatcher <i>Polioptila californica californica</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened

Least Bell's Vireo *Vireo bellii pusillus* Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
<https://ecos.fws.gov/ecp/species/5945>

Southwestern Willow Flycatcher *Empidonax traillii extimus* Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
<https://ecos.fws.gov/ecp/species/6749>

Fishes

NAME	STATUS
Santa Ana Sucker <i>Catostomus santaanae</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3785	Threatened

Flowering Plants

NAME	STATUS
Braunton's Milk-vetch <i>Astragalus brauntonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5674	Endangered
Gambel's Watercress <i>Rorippa gambellii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4201	Endangered
Nevin's Barberry <i>Berberis nevinii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8025	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.

2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird <i>Selasphorus sasin</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Black Skimmer <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15

<p>Burrowing Owl <i>Athene cunicularia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737</p>	Breeds Mar 15 to Aug 31
<p>California Thrasher <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jan 1 to Jul 31
<p>Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Jan 1 to Dec 31
<p>Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084</p>	Breeds May 20 to Jul 31
<p>Costa's Hummingbird <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470</p>	Breeds Jan 15 to Jun 10
<p>Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680</p>	Breeds Jan 1 to Aug 31
<p>Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464</p>	Breeds Mar 20 to Sep 20
<p>Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408</p>	Breeds Apr 20 to Sep 30
<p>Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511</p>	Breeds elsewhere
<p>Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481</p>	Breeds elsewhere
<p>Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410</p>	Breeds Apr 1 to Jul 20

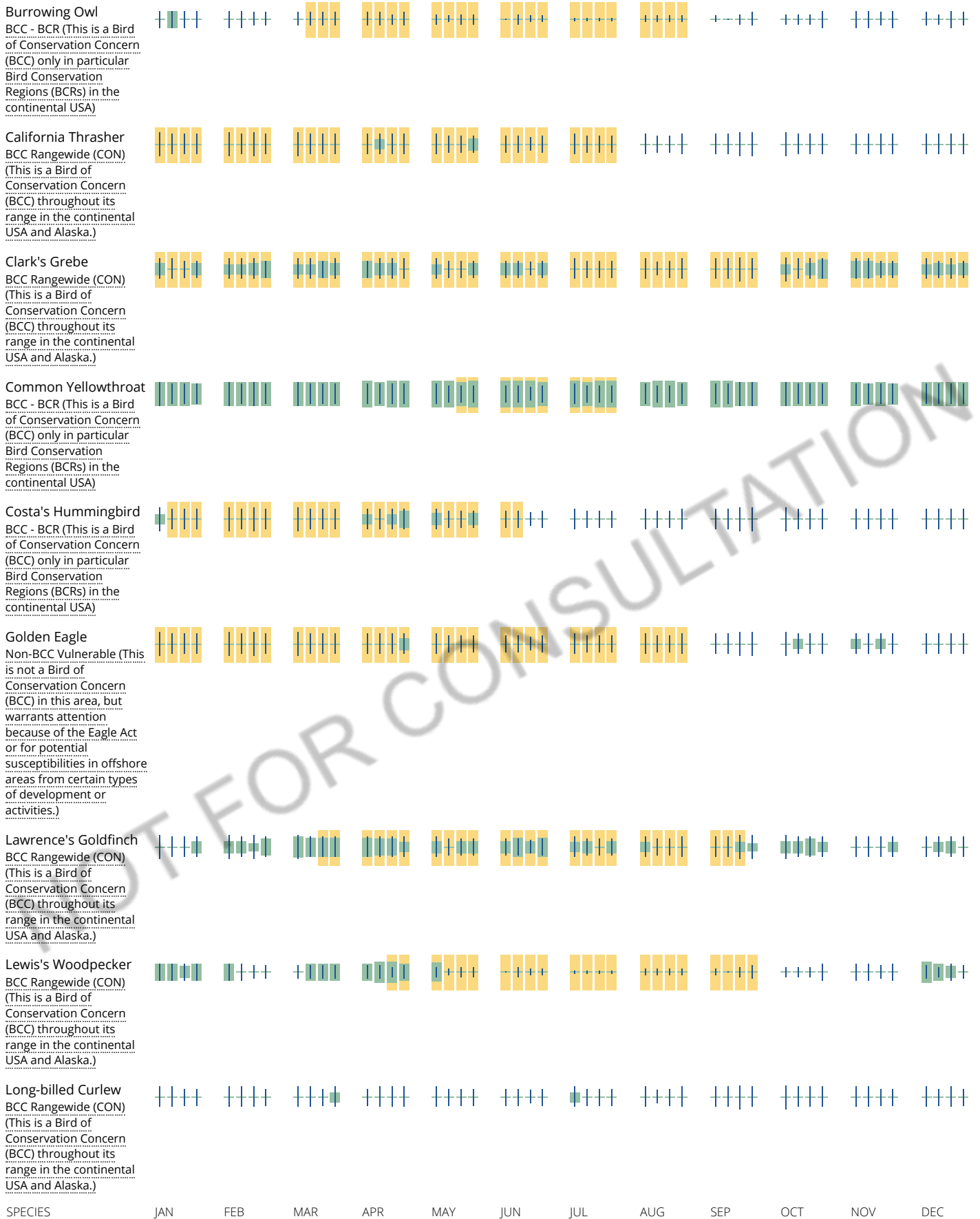
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Whimbrel <i>Numenius phaeopus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

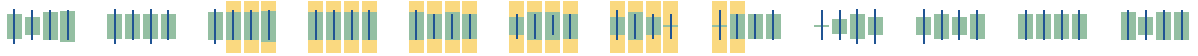


DRAFT FOR CONSULTATION

<p>Marbled Godwit BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	++++	++++	+ +++	++++	+ +++	++++	++++	++++	++++	++++	++++	++++
<p>Nuttall's Woodpecker BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)</p>												
<p>Oak Titmouse BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>			+ +++		+ +++		+ +++		+ +++			
<p>Rufous Hummingbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	++++	+ +++	+ +++		+ +++	++++	+ +++	+ +++	++++	++++	++++	+ +++
<p>Short-billed Dowitcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	++++	++++	++++	++++	++++	++++	+ +++	++++	++++	++++	++++	++++
<p>Song Sparrow BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)</p>		+ +++										
<p>Spotted Towhee BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)</p>												
<p>Tricolored Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	+ +++	+ +++	+ +++					+ +++	+ +++	++++	+ +++	+ +++
<p>Whimbrel BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	++++	++++	++++	++++	+ +++	++++	+ +++	++++	++++	++++	++++	++++
<p>Willet BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)</p>	++++	++++	++++	+ +++	++++	++++	+ +++	+ +++	++++	+ +++	+ +++	+ +++

DRAFT FOR CONSULTATION

Wrentit
BCC Rangewide (CON)
(This is a Bird of
Conservation Concern
(BCC) throughout its
range in the continental
USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R4SBAr](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.