

4.12 Ecosystems and Biological Resources

4.12.1 Regulatory Framework and Methodology

4.12.1.1 Regulatory Framework

The applicable federal, state, and local regulations that are relevant to an analysis of the proposed project's ecosystems and biological impacts are listed below. For additional information regarding these regulations, please see the *Biological Resources Impacts Report* in Appendix N of this Draft EIS/EIR.

Federal

Federal ecosystems/biological resources regulations that would be applicable to the proposed project include:

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- Federal Noxious Weed Act
- Federal Clean Water Act
- Fish and Wildlife Coordination Act

State

The following state ecosystems/biological resources regulations would be applicable to the proposed project:

- California Endangered Species Act
- California Department of Fish and Wildlife Regulations
 - Protected Species in the Fish and Game Code
 - California Native Plant Protection Act and Natural Community Conservation Planning Act
 - Streambed Alteration Agreements
 - Bird/Raptor Protections in the Fish and Game Code
- Porter-Cologne Water Quality Control Act

Local

The following local ecosystems/biological resources would be applicable to the proposed project:

- Los Angeles County General Plan
- City of Los Angeles General Plan
 - Section 6: Endangered Species
 - Section 12: Habitats

- City of Los Angeles Native Tree Protection Ordinance
- City of San Fernando Comprehensive Tree Management Program Ordinance

4.12.1.2 Methodology

The analysis in this section is based on the *East San Fernando Valley Transit Corridor Ecosystems/Biological Resources Impacts Report*.

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 Database¹ and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants² 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 section, “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. 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.

¹ 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.

² 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.

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.

Field Investigation

A site visit was conducted between 9:30 a.m. and 1:15 p.m. 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, a 500-foot buffer from the centerline of the project corridor, which was extended as necessary to include the traction power substation (TPSS) and maintenance and storage facility (MSF) 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).

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.

Impact Analysis Approach

The significance thresholds listed below were used to determine whether an impact would be significant. The biological resource study area 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 (State CEQA Guidelines, 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 (State CEQA Guidelines, 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).

4.12.1.3 Significance Thresholds

NEPA

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 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 proposed project and its alternatives.

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 (WoUS) under Section 404 of the Clean Water Act.

CEQA

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 made at 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.

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” (State CEQA Guidelines, Section 15382).

The State CEQA Guidelines do not describe specific significance thresholds. However, the State 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 and of the following conditions:

- 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.

L.A. CEQA Thresholds Guide

According to the *L.A. CEQA Thresholds Guide* (2006), a project would normally have a significant impact on ecosystems/biological resources 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.

Study Area

To evaluate biological and regulatory conditions and potential direct and indirect effects, the study area for the impacts analysis was defined as encompassing a 500-foot buffer from the centerline of the project corridor, which was extended as necessary to include the TPSS and MSF locations.

4.12.2 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).

4.12.2.1 Vegetation Communities

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.

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*).

4.12.2.2 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 and include 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.³ Soil results are in Figure 3-1, Soil Resources Map of the *Ecosystems/Biological Resources Impacts Report* (see Appendix N) prepared for the proposed project.

4.12.2.3 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.

4.12.2.4 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.⁴ Sensitive species within these dams have limited potential to utilize these downstream wildlife corridors.

³ 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.

⁴ 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.

4.12.2.5 Critical Habitat

A review of USFWS critical habitat maps indicates that no critical habitat has been mapped within the biological resources study area.⁵

4.12.2.6 Raptor Foraging

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

4.12.2.7 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 of the *Ecosystems/Biological Resources Impacts Report* (see Appendix N) for representational photographs of potential nesting and roosting habitat as observed within the biological resources study area.

4.12.2.8 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 requirement regarding a four-inch diameter above breast height and may qualify as protected trees under 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.⁶ For an inventory of street trees along the project alignment, please see Appendix EE of this DEIS/DEIR.

4.12.2.9 Jurisdictional Resources

The proposed project would not require in-water work or work that would affect wetlands. The following text discusses the potential for other jurisdictional resources affected by the project. 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

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

⁶ Ruiz, Ron. Public Works Director. City of San Fernando. Email Conversation. March 26, 2013.

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). The *Ecosystems/Biological Resources Impacts Report* (see Appendix N) included as an appendix a representational photograph of the Pacoima Wash as observed within the biological resources study area.

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 Interstate (I) 5. 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.

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 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 in the *Ecosystems/Biological Resources Impacts Report* (see Appendix N) 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 most likely be determined to be jurisdictional by the U.S. 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 of the *Ecosystems/Biological Resources Impacts Report*.

4.12.2.10 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 have potential to occur within the biological resources study area.

4.12.2.11 Special-Status Species

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, included in the *Ecosystems/Biological Resources Impacts Report* (see Appendix N) 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.

4.12.2.12 Special-Status Wildlife

Table 3.2 included in the *Ecosystems/Biological Resources Impacts Report* (see Appendix N) 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. The discussion below summarizes that information.

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, Pacoima Diversion Canal, and East Canyon Creek; the existing overpasses at I-5, State Route 118, and the Union Pacific Railroad (on Van Nuys Boulevard); and the adjacent vegetation (in particular, palm trees and trees with cavities, crevices, exfoliating bark, and bark fissures) may support roosting habitat for special-status bat species.

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.

4.12.3 Environmental Consequences, Impacts, and Mitigation Measures

No riparian habitat or sensitive natural communities occur within the biological resources study area; therefore, none of the alternatives discussed below would have an impact/effect on riparian habitat or sensitive natural communities under CEQA and NEPA. No further discussion of these biological resources is required.

Additionally, 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 any of the alternatives would not affect any adopted plan and no impact/effect would occur under CEQA or NEPA. No further discussion of impacts on these resources is required.

4.12.3.1 No-Build Alternative

Construction Impacts

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.

Operational Impacts

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 on the ecosystem and changes to existing conditions. Under CEQA, no operational impacts on 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.

Cumulative Impacts

No impacts would occur under construction or operation; therefore, the No-Build Alternative would not contribute to any cumulative impacts.

Mitigation Measures

Construction Mitigation Measures

No construction mitigation measures would be required.

Operational Mitigation Measures

No operational mitigation measures would be required.

Impacts Remaining After Mitigation

NEPA Finding

The No-Build Alternative would not result in adverse effects under NEPA.

CEQA Determination

The No-Build Alternative would result in no impacts under CEQA.

4.12.3.2 TSM Alternative

Construction Impacts

The TSM Alternative proposes transportation systems upgrades, which may include relatively low-cost transit service improvements and minor physical improvements that would be limited to the public roadway right-of-way. As a consequence, no or very minor construction impacts or adverse effects would occur.

Operational Impacts

The TSM Alternative emphasizes transportation systems upgrades, which may include relatively low-cost transit service improvements, such as increased bus frequencies. Because the buses would operate along existing roadways in a developed urban area, no adverse operational impacts or effects on ecosystems/biological resources are expected to occur.

Cumulative Impacts

The TSM Alternative would result in no or very minor construction impacts/effects and no operational impacts or effects. As a consequence, it would not contribute any significant cumulative impacts.

Mitigation Measures

Construction Mitigation Measures

No construction mitigation measures would be required.

Operational Mitigation Measures

No operational mitigation measures would be required.

Impacts Remaining After Mitigation

NEPA Finding

The TSM Alternative would result in no effects or no adverse effects under NEPA.

CEQA Determination

The TSM Alternative would result in no impacts or less than significant impacts under CEQA.

4.12.3.3 BRT Alternatives

Alternative 1– Curb-Running BRT

Construction Impacts

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 of the *Ecosystems/Biological Resources Impacts Report*, are expected to occur within the biological resources study area. Therefore, construction of this 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, Pacoima Diversion Canal, and East Canyon Creek; the

existing overpasses at I-5, State Route 118, and the 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 roosting habitat for special-status bat species. Construction of this alternative would not require modification of these structures but construction activities may require removal of adjacent vegetation, which could disturb or destroy bat roost sites, a potentially significant impact under CEQA and adverse effect under NEPA.

Implementation of Mitigation Measure BIO-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 non-adverse under NEPA.

Migratory Bird Treaty Act/California 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. Proposed improvements under this alternative could require removal of vegetation where there are nesting birds present. As a consequence, vegetation removal could result in impacts to nesting birds, which would be a violation of the Migratory Bird Treaty Act and/or California Fish and Game Code. To ensure compliance with the Migratory Bird Treaty Act and Fish and Game Code, Mitigation Measure BIO-2 is proposed. The biological impact/effect of lost nests for common urban bird species would be less than significant under CEQA and not adverse under NEPA.

Jurisdictional Waters

Three jurisdictional drainages, the Pacoima Wash, the Pacoima Diversion Canal, and East Canyon Creek all occur within the proposed alignment for this 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 BIO-3 for best management practices that would be required when working near jurisdictional drainages to avoid or minimize potential indirect effects.

Wildlife Corridors

The Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek are concrete channel waterways, are not expected to function as significant wildlife movement corridors. As a consequence and because no construction activities are proposed in the channels that would block movement through the area; no impact/affect to wildlife movement would occur under CEQA or NEPA.

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.

Construction of new bus stop canopies could 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 BIO-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 would not be an adverse effect under NEPA with implementation of Mitigation Measure BIO-4.

Operational Impacts

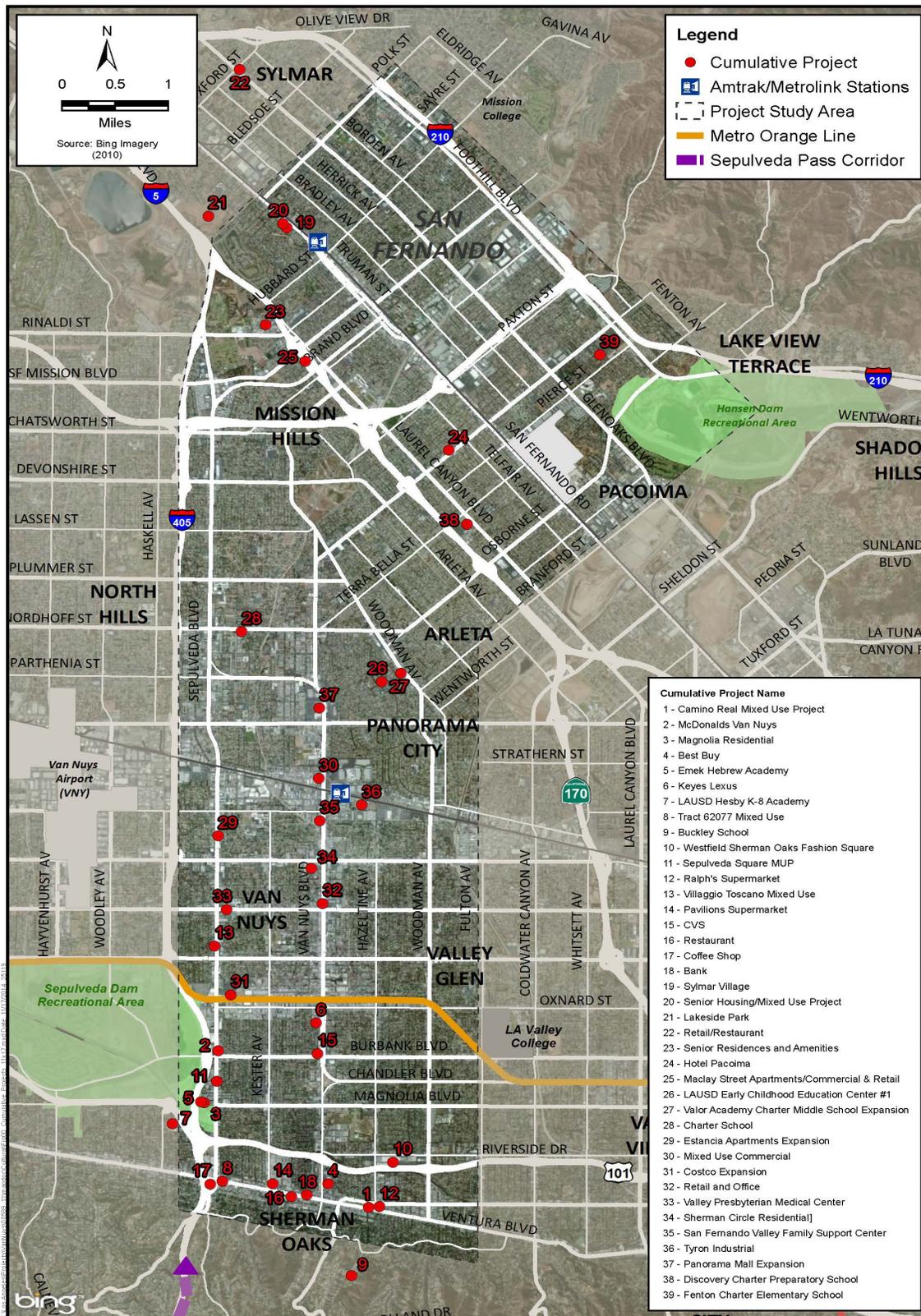
This alternative proposes the conversion of existing curb lanes to dedicated curb-running bus lanes. It would also include upgrades to all currently existing Metro Rapid bus stops (18 in total) including stops at the Sylmar/San Fernando Metrolink station and Metro Orange Line Van Nuys station. Upgrades 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.

Cumulative Impacts

This cumulative impacts analysis for biological resources is based on the related projects list method of cumulative impacts analysis, as described by CEQA Guidelines, Section 15130, subd. (b)(1)(A). Figure 4.12-1 shows the locations of these related projects (see Table 2-3 in Chapter 2 for more details on these related projects) and generally defines the study area for the ecosystems/biological resources cumulative impacts discussion. The study area in Figure 4.12-1 is the appropriate study area as the alignment of the proposed project is located in an urban, developed environment which lacks sufficient suitable native habitat that would attract species from a larger geographic area.

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. Therefore, the related projects are not expected to result in significant cumulative impacts to biological resources. Since the related projects and implementation of Alternative 1 would have limited adverse effects on the diversity and abundance of native flora and fauna in the region and because any biological resources impacts due to the build alternatives would be mitigated with implementation of the mitigation measures identified below, implementation of Alternative 1 (and the other build alternatives) would not result in a cumulatively considerable contribution to significant cumulative impacts on regional flora and fauna.

Figure 4.12-1: Locations of Related Projects



Mitigation Measures

Construction Mitigation Measures

MM-BIO-1: Avoid and Minimize Project-Related Impact on 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 measures shall be implemented:

Bridges and Overpasses

- Should potential bat roosts be identified that will require removal, humane exclusionary devices shall be used. Installation 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 shall 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 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 BIO-2: Avoid Impacts on 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 BIO-3: Jurisdictional Waters

Any work resulting in materials that could be discharged into jurisdictional features shall adhere to strict best management practices (BMPs) 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 and shall include, but not be limited to, the following BMPs as appropriate:

- Containment around the site shall include use of temporary measures such as fiber rolls to surround the construction areas to prevent any spills of slurry discharge or spoils recovered during the separation process;
- Downstream drainage inlets shall be temporarily covered to prevent discharge from entering the storm drain system;
- Construction entrances/exits shall be properly set up so as to reduce or eliminate the tracking of sediment and debris offsite by including grading to prevent runoff from leaving the site, and establishing “rumble racks” or wheel water points at the exit to remove sediment from construction vehicles;
- Onsite rinsing or cleaning of any equipment shall be performed in contained areas and rinse water shall be collected for appropriate disposal;
- Use of a tank on work sites to collect the water for periodic offsite disposal;
- Soil and other building materials (e.g., gravel) stored onsite shall be contained and covered to prevent contact with stormwater and offsite discharge; and
- Water quality of runoff shall be periodically monitored before discharge from the site and into the storm drainage system.

MM BIO-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.

Operational Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant.

NEPA Finding

Biological resources impacts would not be adverse following implementation of proposed mitigation measures.

CEQA Determination

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

Alternative 2–Median-Running BRT

Construction Impacts

Special-status Species

Impacts from this alternative would be of the same nature as those expected under Alternative 1 described above. Thus, similar to Alternative 1, this alternative would not result in impacts or effects on any special-status plant species. This 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. Alternative 2 would not require the modification of any bridge or overpass structures, but may require removal of adjacent vegetation, which could disturb or destroy bat roost sites. Construction activities would also result in increases in noise, movement, and vibration at the bridges over the Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek and the existing overpasses at I-5, State Route 118, and the Union Pacific Railroad (on Van Nuys Boulevard). 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 used by special-status bat species. However, Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts to less than significant under CEQA and non-adverse under NEPA.

Jurisdictional Waters

Only street level modifications would be made along the existing roads under Alternative 2. No work, including reinforcement of bridge structures, would be needed within existing drainage channels. Therefore, implementation of this alternative would not directly affect a federal or state jurisdictional drainage under CEQA or NEPA. However, please see Mitigation Measure BIO-3 for best management practices that would be implemented when working near jurisdictional drainages to avoid or minimize potential indirect effects.

Wildlife 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.

Conflict with Local Policies

This 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 BIO-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 would not be an adverse effect under NEPA with implementation of Mitigation Measure BIO-4.

Operational Impacts

This alternative would construct a BRT line along 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. 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.

Cumulative Impacts

Cumulative impacts would be the same as the cumulative impacts described above for Alternative 1.

Mitigation Measures

Construction Mitigation Measures

Mitigation Measures BIO-1 through BIO-4 would be required (see discussion above for Alternative 1).

Operational Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

NEPA Finding

Biological resources impacts would not be adverse following implementation of proposed mitigation measures.

CEQA Determination

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

4.12.3.4 Rail Alternatives

Alternative 3—Low-Floor LRT/Tram

Construction Impacts

Impacts expected under this alternative would be the same as construction impacts anticipated to occur under Alternatives 1 and 2. Construction would result in increased noise, movement, and vibration at the bridges over the Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek and the existing overpasses at I-5, State Route 118, and the 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 affect nesting birds and/or tree roosting bats if trees are to be removed to make way for the new MSF structures.

Alternative 3 could result in potentially significant impacts under CEQA and adverse effects under NEPA to nesting birds or roosting bats if construction activities remove vegetation where nesting birds are present or affect structures or vegetation used by special-status bat species. However, Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts to less than significant under CEQA and non-adverse under NEPA.

Jurisdictional Waters

Only street level modifications would be made along the existing roads under Alternative 3. No work, including reinforcement of bridge structures, would occur within existing drainage channels. Therefore, implementation of this alternative would not directly affect a federal or state jurisdictional drainage under CEQA or NEPA. However, please see Mitigation Measure BIO-3 for best management practices that would be required when working near jurisdictional drainages to avoid or minimize potential indirect effects.

Wildlife Corridors

This alternative 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 non-adverse under NEPA.

Conflict with Local Policies

If protected trees are removed, implementation of Mitigation Measure BIO-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 would not be an adverse effect under NEPA with implementation of Mitigation Measure BIO-4.

Operational Impacts

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 this alternative would affect avian species by potentially increasing line collisions and electrocution risks. In addition, increased noise, motion and vibration could affect bat roosts on the underside of the bridge crossings over the Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek and the existing overpasses at I-5, State Route 118, and the Union Pacific Railroad (on Van Nuys Boulevard). However, because the project is planned within an existing urban area 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 no adverse effect under NEPA.

Cumulative Impacts

Cumulative impacts would be the same as cumulative impacts described for Alternative 1. See discussion above for Alternative 1.

Mitigation Measures

Construction Mitigation Measures

Mitigation Measures BIO-1 through BIO-4 are proposed (see discussion above under Alternative 1).

Operational Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

NEPA Finding

Biological resources impacts would not be adverse following implementation of proposed mitigation measures.

CEQA Determination

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

Alternative 4–LRT

Construction Impacts

Special-status Species

Impacts from this alternative would be the same as those expected to occur under Alternatives 2 and 3. This alternative 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 this alternative: One bridge at Van Nuys Boulevard where it crosses over the Pacoima Diversion Canal, and one adjacent to San Fernando Road as it crosses over the Pacoima Wash. The existing bridges could 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, and East Canyon Creek and the existing overpasses at I-5, State Route 118, and the 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 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 on biological resources are anticipated for the underground segment of this alternative.

Alternative 4 could result in potentially significant impacts under CEQA and adverse effects under NEPA to nesting birds or roosting bats if construction activities remove vegetation where nesting birds are present or affect structures or vegetation used by special-status bat species. However, Mitigation Measures BIO-1 and BIO-2 would reduce potential impacts to less than significant under CEQA and non-adverse under NEPA.

Jurisdictional Waters

Two bridge upgrades are proposed under this alternative; crossing over the Pacoima Diversion Canal and Pacoima Wash, and are located at Van Nuys Boulevard and along San Fernando Road, within the Metro ROW. As a consequence, this alternative could affect WoUS, waters of the state (WoS), and CDFW jurisdictional streambeds. Project-related impacts on WoUS would require permitting under Section 404 of the Clean Water Act (CWA), most likely in the form of a Nationwide Permit 14 if project-related impacts on WoUS are less than 0.5 acre. Impacts on 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 on a CDFW jurisdictional streambed.

If permanent impacts on 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 on WoUS/WoS and CDFW streambeds would be less than significant under CEQA and would not be adverse under NEPA after compliance with regulatory permit requirements and implementation of mitigation measure MM BIO-3 described above.

Wildlife Corridors

This alternative 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 non-adverse under NEPA.

Conflict with Local Policies

This 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 BIO-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 would not be an adverse effect under NEPA with implementation of Mitigation Measure BIO-4.

Operational Impacts

The 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. 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 affect bat roosts on the underside of the bridge crossings over the Pacoima Wash, Pacoima Diversion Canal, and East Canyon Creek and the existing overpasses at I-5, State Route 118, and the Union Pacific Railroad (on Van Nuys Boulevard). However, because the project is planned within an existing urban area, and wildlife species in the area are urban-tolerant, the overhead contact system lines and LRT operations would result in less-than-significant impacts on common bird species and bats under CEQA and non-adverse effects under NEPA.

Cumulative Impacts

Cumulative impacts would be the same as cumulative impacts described for Alternative 1. See discussion above for Alternative 1.

Mitigation Measures

Construction Mitigation Measures

Mitigation Measures BIO-1 through BIO-4 are proposed (see discussion above under Alternative 1).

Operational Mitigation Measures

No operational mitigation measures would be required.

Impacts Remaining After Mitigation

NEPA Finding

Biological resources impacts would not be adverse following implementation of proposed mitigation measures.

CEQA Determination

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