

**Regional Connector Transit Corridor
Draft Environmental Impact Statement/
Draft Environmental Impact Report**

APPENDIX T



ECOSYSTEMS/BIOLOGICAL RESOURCES

**Regional Connector Transit Corridor
Ecosystems/Biological Resources
Technical Memorandum**

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Los Angeles County Metropolitan Transportation Authority

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ACRONYMS

CE	California Endangered
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
FE	Federally Endangered
FEC	Fairly Endangered in California
FTA	Federal Transit Administration
LRT	Light Rail Transit
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NVEC	Not very endangered in California
PEC	Presumed Extinct in California
SC	Species of Concern in California
SEC	Seriously Endangered in California
TSM	Transportation Management System
USGS	United States Geological Survey

1.0 SUMMARY

The project area does not support sensitive ecosystems or special-status species because of its heavily urbanized condition. Potential impacts to ecosystems and biological resources are limited to potential disturbance of migratory birds that may nest in large, mature trees along the proposed alignments. Active bird nests are protected from harm under the Migratory Bird Treaty Act.

In addition, certain native tree species located along the proposed alignments are protected under the City of Los Angeles Native Tree Protection Ordinance. Compliance with this ordinance would be required if native trees are to be removed or trimmed.

The proposed build alternatives present a potential impact by removing mature trees that provide nesting habitat. Mitigation measures to address this impact could include nest surveys and creating buffer zones around active nests if construction were to occur during nesting season. Additionally, the City of Los Angeles tree protection ordinance requires removed trees to be replaced at a ratio of 2:1 for protected tree species and 1:1 for non-protected species. The proposed build alternatives would also include the planting of new trees at stations and along the corridor related to urban design improvements and landscaping intrinsic to the project. Implementation of these measures would reduce potential impacts to biological resources to a less than significant level.

2.0 INTRODUCTION

This technical memorandum discusses potential impacts on biological resources from constructing and operating the proposed Regional Connector Transit Corridor project. The potential impact area is within 0.25 mile of either side of the proposed alignments for each alternative.

The proposed Regional Connector Transit Corridor project traverses the highly developed central downtown area. As such, biological resources are limited to landscaped areas where mature trees or other vegetation could support wildlife species that are adapted to the urban environment. In particular, migratory birds (including raptors) may use mature trees within the project area for nesting, and are protected under federal, state, and local laws. In addition, native trees are protected under a local ordinance.

3.0 METHODOLOGY FOR IMPACT EVALUATION

This section describes the regulatory framework for protection of ecosystems and biological resources, the standards of significance that are applied to impact evaluations, the area of potential effect, and the methodology used to evaluate potential impacts of each alternative.

3.1 Regulatory Framework

Biological resources within the project area - including within 0.25 mile of each proposed alignment, stations, and maintenance facility sites - are protected by federal, state, and local laws and policies. These are described in the following paragraphs.

3.1.1 Federal

3.1.1.1 Endangered Species Act

The Endangered Species Act and subsequent amendments provide for conservation of endangered and threatened species and the ecosystems upon which they depend. Section 7 of the Endangered Species Act requires federal agencies to aid in the conservation of listed species, and to ensure that the activities of federal agencies will not jeopardize the continued existence of listed species or adversely modify designated critical habitat. At the federal level, the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration are responsible for administration of the Endangered Species Act.

3.1.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) decrees that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. Nearly all native North American bird species are protected by the act. Under the act, taking, killing, or possessing migratory birds is unlawful. "Take" is defined under the federal and state acts to include: 1) actions that harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect listed wildlife, or 2) actions that may result in significant habitat modification or degradation, or that significantly impair essential behavioral patterns (including breeding, feeding, or sheltering).

Projects likely to result in taking of birds protected under the Migratory Bird Treaty Act require the issuance of take permits from the U.S. Fish and Wildlife Service. Activities requiring such a permit include destruction of migratory bird nesting habitat during the nesting season, when eggs or young are likely to be present. Under the act, surveys are required to determine if nests will be disturbed. If a nest would be disturbed, a buffer area with a specified radius around the nest would be established to avoid disturbance or intrusion until the young have fledged and left the nest. If not otherwise specified in the permit, the size of the buffer area would vary with species and local conditions (e.g., presence of busy roads), and would be based on the professional judgment of a monitoring biologist.

3.1.2 State

3.1.2.1 California Endangered Species Act

The California Department of Fish and Game is responsible for administration of the California Endangered Species Act. Unlike the federal Endangered Species Act, there are no state agency consultation procedures under the California Endangered Species Act.

For projects that affect both state and federal listed species, compliance with the federal Endangered Species Act will satisfy the California Endangered Species Act if the California Department of Fish and Game determines that the federal incidental take authorization is "consistent" with the California Endangered Species Act. Projects that result in a "take" of a state-only listed wildlife species require a take permit under the California Endangered Species Act. The federal and/or state acts also lend protection to species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or den locations, communal roosts, or other essential habitat.

3.1.2.2 California Fish and Game Code, Migratory Bird Protection

Sections 3500 through 3705 of the California Fish and Game Code regulate the taking of migratory birds and their nests. These codes prohibit the taking of nesting birds, their nests, eggs, or any portion thereof during the nesting season. Typically, the breeding/nesting season is from March 1 through August 30. Depending on each year's seasonal factors, the breeding season can start earlier and/or end later.

3.1.3 Local

3.1.3.1 City of Los Angeles General Plan

The City of Los Angeles General Plan Conservation Element sets forth objectives and policies to protect biological resources, including endangered species and habitats (City of Los Angeles 2001). For endangered species, the General Plan states the following objective:

Protect and promote the restoration, to the greatest extent practical, of sensitive plant and animal species and their habitats.

Policies to achieve this objective include:

- Continue to require evaluation, avoidance, and minimization of potential significant impacts, as well as mitigation of unavoidable significant impacts on sensitive animal and plant species and their habitats and habitat corridors relative to land development activities.

- 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.
- Continue to support legislation that encourages and facilitates protection of endangered, threatened, sensitive, and rare species and their habitats and habitat corridors.

For habitats, the General Plan objective is to:

Preserve, protect, restore and enhance natural plant and wildlife diversity, habitats, corridors and linkages so as to enable the healthy propagation and survival of native species, especially those species that are endangered, sensitive, threatened or species of special concern.

Established policies regarding protection of habitats include:

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

3.1.3.2 City of Los Angeles Native Tree Protection Ordinance

The City of Los Angeles passed a 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 native oak tree species (*Quercus Spp*) (excluding scrub oak), Western Sycamore (*Platanus Racemosa*), California Bay (*Umbellularia Californica*), and California Black Walnut (*Juglans Californica*).
- Applies to protected trees 4 inches or greater in diameter at 4.5 feet above ground (multiple trunk trees are calculated by cumulative diameter).
- Applies to protected trees on private lots.

- Requires that a report showing the location of each protected tree in a project area, whether each tree is to be retained, relocated, or removed, and the proposed replacement measures be submitted by a registered consulting arborist, landscape architect, or pest control advisor who is also a certified arborist.

Protected tree removal requires a removal permit by the Board of Public Works. Any act that may cause the failure or death of a protected tree requires inspection by the City's Urban Forestry Division. Removed trees are to be replaced at a ratio of 2:1 for protected species and 1:1 for non-protected species. Saplings to large box trees can be used for mitigation, depending on what has the best chance of survival for a particular project. Replacement trees are required to be at least 1 inch in diameter, 1 foot above the base, and at least 7 feet in height. The code allows replacement trees to be of different species if protected species are not available; however, a greater number of replacement trees would likely then be required. Although the law does not require a permit for pruning protected trees, the City recommends that a certified arborist be consulted to ensure that the pruning of protected trees is performed properly.

3.2 Standards of Significance

The National Environmental Policy Act (NEPA) requires an evaluation of potential impacts to federally listed endangered species, the ecological importance and distribution of affected species, and the intensity of potential impacts from the project alternatives, including the No Build Alternative. The NEPA process is considered the framework for compliance with federal laws for the protection of endangered species and biological resources, including the Endangered Species Act and Executive Order 11990, Protection of Wetlands.

California Environmental Quality Act (CEQA) thresholds with regard to biological resources are identified in Section C of the *Los Angeles CEQA Thresholds Guide*. The *Los Angeles CEQA Thresholds Guide* (page C-6) states that a project would normally have a significant impact on biological resources if it could:

- Result in the loss of individuals, or 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;
- Result in the loss of individuals, reduction of existing habitat of a locally designated species, or reduction in a locally designated natural habitat or plant community;
- Interfere with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species;
- Result in alteration of an existing wetland habitat; or

- Interfere with habitat such that normal species' behaviors are disturbed (e.g., from introducing noise or light) to a degree that may diminish the chances for long-term survival of a sensitive species.

In addition, Appendix G of the *CEQA Guidelines* indicates that a project would have a significant effect on the environment if it would:

- Fundamentally conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.3 Area of Potential Effect

To evaluate potential impacts to ecosystems/biological resources, an area within 0.25 mile of either side of the proposed alignments for each of the project alternatives was evaluated (Figure 3-1). This is a conservative approach for evaluating potential impacts to biological resources such as disturbance of nesting birds. Since the alignments differ among alternatives, the area of potential impact also varies.

3.4 Evaluation Methodology

The evaluation methodology included a review of the California Natural Diversity Database (CNDDDB) to identify sensitive plants and animals potentially occurring in the project area. All of the project alternatives are located within the United States Geological Survey (USGS) Los Angeles 7.5-minute quadrangle. A 7.5-minute quadrangle is an area that spans 7.5 minutes of latitude and 7.5 minutes of longitude, which ranges from 64 square miles at latitude 30 degrees north to 49 square miles at latitude 49 degrees north. The Los Angeles 7.5-minute quadrangle is approximately 60 square miles.

A field review of parks and other public open spaces within 0.25 mile of either side of the proposed alignments was also conducted, and included visual observation and photographic documentation of all parks, open space areas, and mature trees within the project area.

Results of this field survey were used to determine whether biological resources (including sensitive ecological areas, wetlands, wildlife migratory corridors, and/or habitat conservation areas) occur within the project area and if those areas could potentially support any of the sensitive species identified by the CNDDDB. If the project could potentially impact biological resources, through effects on species or habitat, there could be a potential for adverse impacts.

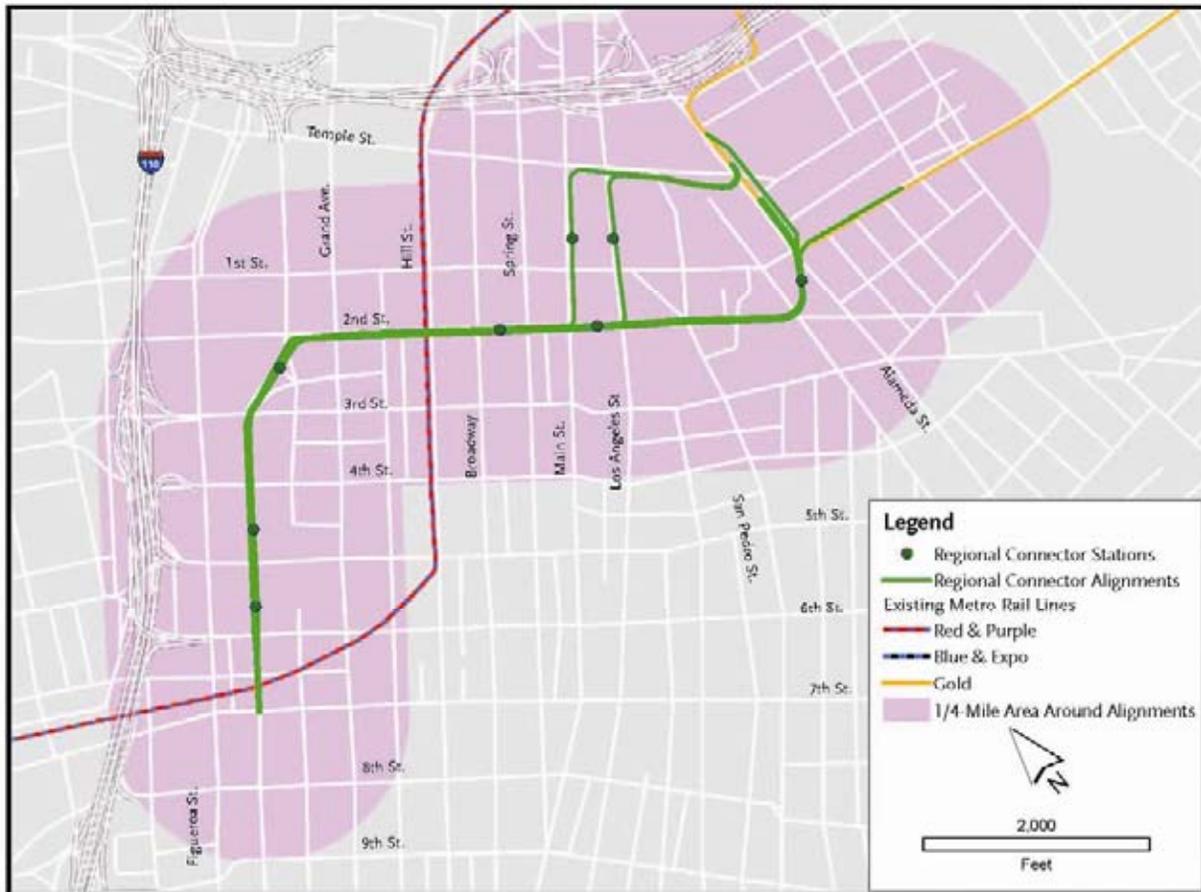


Figure 3-1. Area of Potential Effect

4.0 AFFECTED ENVIRONMENT

4.1 Existing Conditions in the Project Area

Due to its densely developed and urbanized nature, the project area provides little opportunity for wildlife species or other biological resources to exist. There are no Habitat Conservation Plans for this area, and no Significant Ecological Area was located within 0.25 mile of either side of the proposed alignments (City of Los Angeles 2001). There are no wildlife corridors within this area to support movement of wildlife species. There are no wetlands, oak woodlands, or coastal sage scrub habitat within the project area. The Los Angeles River, which is contained within a concrete channel through the downtown area, is located more than 0.25 mile away from the project area.

Table 4-1 presents special-status wildlife and plant species and ecosystems (plant communities) listed on the CNDDDB as potentially occurring within the USGS Los Angeles 7.5-minute quadrangle in which the project area is located. The CNDDDB search reported all species found somewhere within the approximately 60-square-mile quadrangle. As the project area is only approximately 1.6 square miles, it represents a very small portion of the quadrangle and provides little habitat, as determined during the field survey.

Table 4-1. Ecosystems and Special-Status Wildlife and Plant Species Potentially in the Project Area		
Common Name	Scientific Name	Status
Ecosystems (Vegetation Communities)		
Walnut Forest	Walnut Forest	None
Birds		
Burrowing Owl	<i>Athene cunicularia</i>	SC ¹
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	FE ² , CE ³
Mammals		
Hoary Bat	<i>Lasiurus cinereus</i>	None
Western Mastiff Bat	<i>Eumops perotis californicus</i>	SC ¹
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	SC ¹

Table 4-1. Ecosystems and Special-Status Wildlife and Plant Species Potentially in the Project Area

Common Name	Scientific Name	Status
American Badger	Taxidea taxus	SC ¹
Reptiles		
Coast (San Diego) Horned Lizard	Phrynosoma coronatum (blainvillii population)	SC ¹
Plants		
Los Angeles Sunflower	Helianthus nuttallii ssp. parishii	PEC ⁴
Greata's Aster	Symphytotrichum greatae	NVEC ⁵
Davidson's Saltscale	Atriplex serenana var. davidsonii	FEC ⁶
Parish's Gooseberry	Ribes divaricatum var. parishii	PEC ⁴
Orcutt's Linanthus	Linanthus orcuttii	NVEC ⁵
Prostrate Vernal Pool Navarretia	Navarretia prostrata	SEC ⁷
Mesa Horkelia	Horkelia cuneata ssp. puberula	SEC ⁷
Plummer's Mariposa-Lily	Calochortus plummerae	FEC ⁶

Source: California Natural Diversity Database (CNDDDB), May 18, 2009

¹SC – Species of Concern in California (California Department of Fish and Game).

²FE – Federally Endangered (U.S. Fish and Wildlife Service).

³CE – California Endangered (California Department of Fish and Game).

⁴PEC – Presumed Extinct in California (California Native Plant Society).

⁵NVEC - Not Very Endangered in California (California Native Plant Society).

⁶FEC - Fairly Endangered in California (California Native Plant Society).

⁷SEC - Seriously Endangered in California (California Native Plant Society).

A field survey of the project area was conducted on May 17, 2009. Based on this survey's observations, there is no evidence of habitat within the project area to support the sensitive species and vegetation community identified by the CNDDDB as potentially occurring within the Los Angeles quadrangle.

However, mature trees were observed along the proposed alignments and within roadway medians. Due to their mobility, some migratory bird species may utilize these mature trees

during migration. While unlikely, there is potential for migratory birds, including raptors, to utilize these mature trees for breeding.

Approximately 25 large trees, including palms and pine trees, are located around the Los Angeles Public Library near the corner of 5th and Flower Streets. In addition, three large pine trees are within the center median of Los Angeles Street, and several large fern pines are located along 2nd Street between Main and Los Angeles Streets.

Due to the high level of disturbance in this urban setting, there is only a minimal potential for Red-tailed hawk, Great-horned owl and other raptors to nest in these trees. However, Great horned owls may be more likely to select buildings in urban settings as nest sites. Smaller songbird species, including Lesser goldfinch, House finch, Western scrub jay, Bushtit, Northern mockingbird, and American robin, may also nest in these trees. While native songbirds may nest in these mature trees, the native bird species tend to preferentially select native plant species for nesting substrates when they are available.

Approximately 15 mature palm trees are located on 4th Street across from the Library. Several more palms are located along Main Street near 2nd Street. Large palms also exist in the area in front of City Hall at 201 N. Los Angeles Street. Many resident and migratory bird species in Los Angeles are known to nest in palm trees, including Hooded orioles, Barn owls, and Northern flicker.

California Sycamore, a native tree species protected under the City of Los Angeles Native Tree Protection Ordinance, is found in several locations within the project area:

- Near the corner of 5th and Flower Streets
- Along 2nd Street between Hill Street and Broadway
- Along Main Street between 2nd and 1st Streets

Table 4-2 shows trees that were identified in the project area through the field survey. All of the proposed alignments of the underground alternatives affect the same number of trees in the same locations and are shown only once in Table 4-2. The number of trees that occur along the alignments of the Underground Emphasis LRT Alternative, the Fully Underground LRT Alternative – Little Tokyo Variation 1, and the Fully Underground LRT Alternative – Little Tokyo Variation 2 are essentially the same. However, the Underground Emphasis LRT Alternative has the potential to affect a greater number of trees east of Los Angeles Street than either of the Fully Underground LRT Alternatives as shown in Table 4-2. This is because the Underground Emphasis LRT Alternative includes an underpass along Alameda Street and the Los Angeles Street option for a potential station along 2nd Street.

Table 4-2. Trees Potentially Affected by the Build Alternatives

Location	At-Grade Emphasis LRT		Underground Alternatives ⁹	
	Native (CA sycamores)	Palms and other mature non-native trees	Native (CA sycamores)	Palms and other mature non-native trees
Los Angeles Library (at Flower and 5 th Streets) ¹	10	25	10	15
Flower Street to 2 nd Street	0	15	0	0
Flower Street where alignment turns ²	5	25	5	25
Along 2 nd Street to Los Angeles Street ³	20	35	0	0
Underground station at 2 nd Street - Broadway ⁴	0	0	10	15
Underground Emphasis LRT station at 2 nd Street - Los Angeles Street Option ⁵	0	0	10	25
Main Street (At-Grade Emphasis LRT only) ⁶	20	40	0	0
Los Angeles Street (At-Grade Emphasis LRT only) ⁷	5	35	0	0
Temple Street (At-Grade Emphasis LRT only) ⁸	0	15	0	0
2 nd Street east of Los Angeles Street (Underground Emphasis LRT only)	0	0	5	35
At-grade tracks along Alameda and underpass (Underground Emphasis LRT only)	0	0	0	15

Table 4-2. Trees Potentially Affected by the Build Alternatives

Location	At-Grade Emphasis LRT		Underground Alternatives ⁹	
Fully Underground LRT station at 2 nd Street and Central Avenue				7 ¹⁰
Fully Underground LRT portals east of Alameda Street – Variations 1 and 2	0	0	0	0 ¹¹
Totals				
At-Grade Emphasis LRT Alternative	60	190	N/A	N/A
Underground Emphasis LRT Alternative	N/A	N/A	40	130
Fully Underground LRT Alternatives	N/A	N/A	25	62

¹ The station at this location is underground for the build alternatives, but the potential impact is calculated based on the at-grade construction footprint.

² The station footprints are identical for the build alternatives since alignments are located underground.

³ Alignments are along 2nd Street but impacts are different depending on whether proposed LRT is at-grade or underground.

⁴ No station proposed at this location for the At-Grade Emphasis LRT Alternative.

⁵ No station proposed at this location for the At-Grade Emphasis LRT Alternative or the Fully Underground LRT Alternatives.

⁶ Table lists existing sycamores and mature non-native trees along Main Street.

⁷ Large pines located in the center median, other trees located along Los Angeles Street.

⁸ Inventory includes large ficus, etc. along Temple Street.

⁹ Underground alternatives include the Underground Emphasis LRT Alternative, the Fully Underground LRT Alternative – Little Tokyo Variation 1, and the Fully Underground LRT Alternative – Little Tokyo Variation 2.

¹⁰ Includes trees on the west side of Alameda between 1st and 2nd Streets that may be affected and one mature cherry tree on Central Avenue that could be impacted if the building containing the Weyland's Brewery is removed.

¹¹ There are several small trees along 1st Street that are much less than 4" dbh.

5.0 IMPACTS

5.1 No Build Alternative

5.1.1 Direct Impacts

Since there would be no construction under the No Build Alternative, there would be no direct impacts to ecosystems or biological resources in the project area.

5.1.2 Indirect Impacts

The No Build Alternative would not result in indirect impacts to ecosystems or biological resources.

5.1.3 Cumulative Impacts

Since the No Build Alternative would not result in direct or indirect impacts to ecosystems or biological resources, there would be no cumulative impacts.

5.2 Transportation System Management (TSM) Alternative

5.2.1 Direct Impacts

The two new express shuttle bus lines created under the TSM Alternative would not require construction that would directly impact ecosystems or biological resources in the project area.

5.2.2 Indirect Impacts

There would be no indirect impacts to ecosystems or biological resources from the TSM Alternative.

5.2.3 Cumulative Impacts

Since the TSM Alternative would not result in direct or indirect impacts to ecosystems or biological resources, there would be no cumulative impacts.

5.3 At-Grade Emphasis Light Rail Transit (LRT) Alternative

5.3.1 Direct Impacts

During construction of the At-Grade Emphasis LRT Alternative, some mature trees located along the proposed alignment could be removed or disturbed. As these mature trees may provide potential nesting and roosting habitat for bird species, including raptors, removing or disturbing this vegetation during the nesting season could directly impact the habitat and any bird species that are present.

There are currently 250 mature trees in the area that could potentially be affected by construction, and a subset of these trees could be removed or disturbed during construction

of the At-Grade Emphasis LRT Alternative. Of this total, 60 trees are native California sycamore trees, a protected species.

It is unknown at this time exactly how many trees could be affected. As project design progresses and construction plans are finalized, it may be possible to minimize the number of affected trees by avoidance or fencing. Potential mitigation measures are described in Section 6 and include compliance with the Native Tree Protection Ordinance. Compliance with the Native Tree Protection Ordinance, including replacement of this protected species at a 2:1 ratio, would reduce this potential impact to a less than significant level.

Additionally, as an integral part of the project, station landscaping and urban design along the entire alignment would include planting new trees. Street restoration plans would also include planting new trees; the type of trees would be determined in consultation with the City, the community, and designers. Therefore, after mitigation, the build alternatives could result in a net increase in total tree inventory.

5.3.2 Indirect Impacts

Direct impacts to birds and their habitat by removing or disturbing mature trees have the potential to cause indirect impacts elsewhere. If birds are forced to relocate to new areas during the nesting season, increased competition for food and nesting habitat would be a potential indirect impact.

However, because the downtown area provides only low quality habitat for migratory birds, these potential impacts are not considered to be significant because only a small number of birds (if any) could be displaced. Further, mitigation taken to comply with the MBTA and the California Fish and Game Code would reduce potential indirect impacts to a less than significant level.

5.3.3 Cumulative Impacts

The project area is expected to experience growth in the future, and construction activities associated with future projects have the potential to affect migratory birds if nesting habitat is disturbed during the breeding season. Other ongoing and future construction projects would be required to implement mitigation measures for any potential impacts to biological resources, particularly migratory birds, as required under either the MBTA or the California Fish and Game Code. Therefore, there would be no cumulative impacts from the At-Grade Emphasis LRT Alternative with respect to biological resources.

5.4 Underground Emphasis LRT Alternative

5.4.1 Direct Impacts

Construction of the Underground Emphasis LRT Alternative could require removal or disturbance of mature trees located along the proposed alignment, although less so than

under the At-Grade Emphasis LRT Alternative. As these mature trees may provide potential nesting and roosting habitat for bird species, including raptors, removing or disturbing this vegetation during the nesting season could directly impact the habitat and any bird species that are present.

There are currently 170 mature trees in the area that could potentially be affected by construction, and a subset of these trees could be removed or disturbed during construction of the Underground Emphasis LRT Alternative. It is unknown at this time exactly how many trees could be affected. As project design progresses and construction plans are finalized, it may be possible to minimize the number of affected trees by avoidance or fencing.

Potential mitigation measures include compliance with the Native Tree Protection Ordinance and are described in Section 6. These mitigation measures would be implemented to ensure that potential impacts from tree disturbance or removal would be reduced to a less than significant level.

An estimated 40 native California sycamore trees occur in the potential area of impact and could be affected by this alternative. As project design progresses, it may be possible to minimize the number of sycamores affected by avoidance or fencing. Potential mitigation measures include compliance with the Native Tree Protection Ordinance and are described in Section 6. Compliance with the Native Tree Protection Ordinance, including replacement of this protected species at a 2:1 ratio, would reduce this potential impact to a less than significant level.

Additionally, as an integral part of the project, station landscaping and urban design along the entire alignment would include planting new trees. Street restoration plans would include planting new trees; the type of trees would be determined in consultation with the City, the community, and designers. Therefore, after mitigation, the build alternatives could result in a net increase in total tree inventory.

5.4.2 Indirect Impacts

Indirect impacts to birds at some distance from the project area could occur if mature trees are removed or disturbed during the nesting season. If birds are forced to relocate to new areas, increased competition for food and nesting habitat would be an indirect impact. This impact would not be significant because the project area provides only low quality habitat for a small number of migratory birds and only a small number of birds (if any) could be displaced. Mitigation taken to comply with the MBTA and the California Fish and Game Code would reduce these potential indirect impacts to a less than significant level.

5.4.3 Cumulative Impacts

Construction activities associated with future projects within the project area have the potential to affect migratory birds if nesting habitat is disturbed during the breeding season.

Other ongoing and future construction projects would be required to implement mitigation measures to address any potential impacts to migratory birds under either the MBTA or the California Fish and Game Code. Therefore, there would be no cumulative impacts from the Underground Emphasis LRT Alternative with respect to biological resources.

5.5 Fully Underground LRT Alternative- Little Tokyo Variation 1

5.5.1 Direct Impacts

The Fully Underground LRT Alternative- Little Tokyo Variation 1 has the potential to affect fewer trees compared to the Underground Emphasis LRT Alternative. The vehicle underpass along Alameda Street between Temple and 2nd Streets proposed for the Underground Emphasis LRT Alternative has the potential to affect more trees than the Fully Underground LRT Alternative alignment. As no mature trees or other biological resources were observed in the area north and east of 1st and Alameda Streets, there are no additional direct impacts related to the Fully Underground LRT Alternative – Little Tokyo Variation 1. The same mitigation measures described in Section 6 would be required to reduce these potential impacts to a less than significant level.

There are several cherry trees along 1st Street and Central Avenue; most are much less than 4 inches dbh. If the entire block bounded by 1st, 2nd, and Alameda Streets and Central Avenue is required for construction and additional buildings must be removed, then there is the potential that one additional cherry tree that is slightly larger than 4 inches dbh in the sidewalk on Central Avenue might be removed. This effect would be less than significant.

5.5.2 Indirect Impacts

As with the other build alternatives, indirect impacts to migratory birds from the Fully Underground LRT Alternative- Little Tokyo Variation 1 would not be significant because the project area provides only low quality habitat for a small number of migratory birds and only a small number of birds (if any) could be displaced. Mitigation taken to comply with the MBTA and the California Fish and Game Code would reduce these potential indirect impacts to a less than significant level.

5.5.3 Cumulative Impacts

Construction activities associated with future projects within the project area have the potential to affect migratory birds if nesting habitat is disturbed during the breeding season. Other ongoing and future construction projects would be required to implement mitigation measures to address any potential impacts to migratory birds either under the MBTA or the California Fish and Game Code. Therefore, there would be no cumulative impacts from the Fully Underground LRT Alternative- Little Tokyo Variation 1 with respect to biological resources.

5.6 Fully Underground LRT Alternative- Little Tokyo Variation 2

5.6.1 Direct Impacts

The Fully Underground LRT Alternative - Little Tokyo Variation 2 would have the same potential to cause direct impacts by removing or disturbing mature trees as would the Fully Underground LRT Alternative- Little Tokyo Variation 1. Implementing the same mitigation measures described in Section 6 would be required to reduce these potential impacts to a less than significant level.

If the entire block bounded by 1st, 2nd, and Alameda Streets and Central Avenue is required for construction and additional building must be removed, then there is the potential that one additional cherry tree in the sidewalk on Central Avenue might be removed. This effect would be less than significant.

5.6.2 Indirect Impacts

As with the other build alternatives, indirect impacts to migratory birds from the Fully Underground LRT Alternative- Little Tokyo Variation 2 would not be significant because the project area provides only low quality habitat for a small number of migratory birds and only a small number of birds (if any) could be displaced. Mitigation taken to comply with the MBTA and the California Fish and Game Code would reduce these potential indirect impacts to a less than significant level.

5.6.3 Cumulative Impacts

Construction activities associated with future projects within the project area have the potential to affect migratory birds if nesting habitat is disturbed during the breeding season. Other ongoing and future construction projects would be required to implement mitigation measures to address any potential impacts to migratory birds under either the MBTA or the California Fish and Game Code. Therefore, there would be no potential cumulative impacts from the Fully Underground LRT Alternative- Little Tokyo Variation 2 with respect to biological resources.

6.0 POTENTIAL MITIGATION MEASURES

Federal and state migratory bird protection would require mitigation measures to address potential impacts to nesting bird species from the potential disturbance of trees within the proposed build alternative alignments. Trees that could potentially be disturbed include: 1) a portion of the approximately 250 trees located within the proposed alignment and station footprints for the At-Grade Emphasis LRT Alternative, and 2) the approximately 170 trees located within the proposed alignment and station footprints for all of the underground alternatives. The following potential mitigation measures would apply to all of the proposed build alternatives.

The first potential mitigation would be to avoid tree disturbances as much as possible. As project design progresses, it may be possible to reduce the number of trees potentially disturbed by avoidance or fencing. It may also be possible to reduce the scale of disturbance by trimming individual trees instead of removing them completely.

The second potential mitigation would be to time necessary tree removal and trimming activities to seasons outside of the bird breeding season, which can extend from February 1 to August 31.

If it is not feasible to avoid tree removal and trimming related to construction during the breeding bird season from February 1 to August 31, breeding bird surveys would be conducted as recommended by the California Department of Fish and Game. Two biological surveys would be conducted, one 15 days and a second 72 hours prior to construction activities that would remove or disturb suitable nesting habitat. The surveys would be performed by a biologist with experience conducting breeding bird surveys.

The biologist would prepare survey reports documenting the presence or absence of active nests of any protected native bird in the habitat to be removed and any other such habitat within 300 feet of the construction work area (or within 500 feet for raptors). If an active nest is located, construction within 300 feet of the nest (or 500 feet for raptor nests) would be postponed until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting.

If construction of the project requires removing any of the native trees located along the proposed alignment and stations for any of the build alternatives (including the At-Grade Emphasis LRT Alternative, the Underground Emphasis LRT, or either of the two Fully Underground LRT Alternative variations), a removal permit would be required from the Los Angeles Board of Public Works in accordance with the City of Los Angeles Native Tree Protection Ordinance. The tree removal permit may require replanting of native trees within the project area or at another location within the City of Los Angeles to mitigate for the removal of these trees. The City's ordinance requires replacement of protected trees at a 2:1

ratio and other trees at a 1:1 ratio. If construction would require pruning of any protected native tree, the pruning would be performed in a manner that does not cause permanent damage or adversely affect the health of the trees.

Additionally, as an integral part of the project, station landscaping and urban design along the entire alignment would include planting new trees. Street restoration plans would include planting new trees; the type of trees would be determined in consultation with the City, the community, and designers. If landscaping and/or street trees planted as part of another Metro transit project are disturbed by this project, they would be replaced to the extent feasible. Therefore, after mitigation, the build alternatives could result in a net increase in total tree inventory.

7.0 CONCLUSIONS

7.1 No Build Alternative

There would be no impact from the No Build Alternative to ecosystems and biological resources.

7.2 TSM Alternative

There would be no significant impact from the TSM Alternative to ecosystems and biological resources.

7.3 At-Grade Emphasis LRT Alternative

7.3.1 NEPA Findings

Implementation of mitigation measures to address potential impacts to migratory birds and compliance with the Native Tree Protection Ordinance would result in no significant adverse impact on ecosystems and biological resources from the At-Grade Emphasis LRT Alternative.

7.3.2 CEQA Determinations

Mitigation measures would reduce potential impacts to ecosystems and biological resources from the At-Grade Emphasis LRT Alternative to a less than significant level.

7.4 Underground Emphasis LRT Alternative

7.4.1 NEPA Findings

Implementation of mitigation measures would result in no significant adverse impact to ecosystems and biological resources from the Underground Emphasis LRT Alternative.

7.4.2 CEQA Determinations

With mitigation, potential impacts to ecosystems and biological resources would be less than significant.

7.5 Fully Underground LRT Alternative- Little Tokyo Variation 1

7.5.1 NEPA Findings

Implementation of mitigation measures would result in no significant adverse impact on ecosystems and biological resources from the Fully Underground LRT Alternative- Little Tokyo Variation 1.

7.5.2 CEQA Determinations

Implementation of mitigation measures would reduce potential impacts to ecosystems and biological resources from the Fully Underground LRT Alternative- Little Tokyo Variation 1 to a less than significant level.

7.6 Fully Underground LRT Alternative- Little Tokyo Variation 2

7.6.1 NEPA Findings

By implementing mitigation measures, no significant adverse impact on ecosystems and biological resources would occur from the Fully Underground LRT Alternative- Little Tokyo Variation 2.

7.6.2 CEQA Determinations

Implementation of mitigation measures would reduce potential impacts to ecosystems and biological resources from the Fully Underground LRT Alternative- Little Tokyo Variation 2 to a less than significant level.

8.0 REFERENCES CITED

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