Appendix G
Supplemental Biological Resources Report

SUPPLEMENTAL BIOLOGICAL RESOURCES REPORT FOR THE LOS ANGELES AERIAL RAPID TRANSIT PROJECT LOS ANGELES, CALIFORNIA

***Prepared for*:**

The Los Angeles Aerial Rapid Transit Final Environmental Impact Report

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ACRONYMS AND OTHER ABBREVIATIONS

AECOM	AECOM Technical Services, Inc.
agl	above ground level
amsl	above mean sea level
BRA	Biological Resource Assessment
BSA	Biological Survey Area
Caltrans	California Department of Transportation
CDFW	Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
DBH	Diameter at Breast Height
EIR	Environmental Impact Report
LAUS	Los Angeles Union Station
Metro	Los Angeles County Metropolitan Transportation Authority
proposed Project	Los Angeles Aerial Rapid Transit Project
ROW	right-of-way
SR	State Route
USFWS	U.S. Fish and Wildlife Service
>	greater than
<	less than

1 INTRODUCTION

LA Aerial Rapid Transit Technologies LLC (the Project Sponsor) is proposing the Los Angeles Aerial Rapid Transit Project (proposed Project), which would connect Los Angeles Union Station (LAUS) to the Dodger Stadium property via an aerial gondola system. The Los Angeles County Metropolitan Transportation Authority (Metro) was the "lead agency" in the preparation of a Draft Environmental Impact Report (EIR) (AECOM 2022a) for the proposed Project in accordance with the California Environmental Quality Act (CEQA). The purpose of the Draft EIR was to evaluate the potential environmental effects that would result from development of the proposed Project. Metro released the Draft EIR for the proposed Project on October 17, 2022, initiating a 90-day public comment period that ended January 17, 2023.

This technical memorandum addresses select comments received during the public comment period for the Draft EIR related to Biological Resources. Comments that pertain generally to the following topic areas are addressed herein:

- Adequacy of Surveys
- Operational Impacts
- Tree Removal
- Impacts to Species not Considered
- Pigeon Roost Inducement

These topics are addressed in Sections 2 through 6 of this memorandum, respectively. Each section lists the relevant comments, provides a synopsis of the primary topics addressed in the comments, and provides a technical response to each of the main points. The Biological Resources section of the Draft EIR (Section 3.4) was prepared based, in part, on information compiled in the Biological Resources Assessment (BRA, AECOM 2022b, Appendix E of the Draft EIR). The BRA evaluated the presence or absence of sensitive species and habitats and assessed the potential project impacts on those resources. Herein, relevant information already presented in these two documents is cited, where applicable.

2 ADEQUACY OF SURVEYS

Comments were received that pertained to the adequacy of surveys used in the Draft EIR biological assessment, including the following:

- P708-2 and P708-3 (Land Protection Partners)
- G014-133 and G014-142 (LA Parks Alliance)

The main points raised by one or more comments fall under one of the following categories: the survey effort in the Biological Survey Area (BSA) was insufficient; the size of the BSA was inadequate; and specialized survey techniques should be used.

2.1 TECHNICAL RESPONSE TO COMMENTS

2.1.1 Survey Effort in the BSA

All wildlife detected during the two initial surveys (April 1, 2020, and April 24, 2021) were noted in the Biological Resource Assessment (BRA)/Draft EIR. The surveys monitored for all wildlife, including any sensitive species. If any sensitive species (e.g., Least Bell's Vireo, burrowing owl) or suitable habitat for sensitive species had been detected, this information would have been included in the BRA and Draft EIR. It is important to note that although the Draft EIR (AECOM 2022a) lists the species detected during the surveys, and states that these are common species, it does not conclude that the observed species are the only ones assumed to *use* the BSA, nor that sensitive species never *occur* in the BSA. Although additional surveys could increase the number of species detected, even exhaustive surveys may not result in detections of sensitive species that occur on site only occasionally. Nonetheless, a third field survey was performed March 23, 2023 to provide an updated habitat assessment for sensitive species (see Section 5) and supplementary wildlife survey effort. During this visit, two biologists surveyed the BSA over a 4.5-hour period (11:00 AM to 3:30 PM) and observed 17 bird species and 2 mammal species (species list provided in Appendix A). This survey effort is discussed in greater detail in Section 5.

In addition to the field surveys, as part of the preparation of the BRA/Draft EIR, an assessment of habitat suitability and a California Natural Diversity Database (CNDDB) records search were conducted to identify records of sensitive species in the USGS *Los Angeles* Quadrangle, within which the BSA is located, and the surrounding eight quadrangles; an area measuring approximately 21.5 miles by 26 miles. As noted in the BRA/Draft EIR, the most recent CNDDB record of special-status species in the BSA was from 25 years ago, with no records of federal or state-listed wildlife species in the BSA in the past 100 years.

2.1.2 Size of the BSA

The BSA encompasses a 500-foot buffer around the proposed Project alignment. Habitats and wildlife occurring outside of this 500-foot buffer were considered to be a sufficient distance away to not be affected by construction or operation of the proposed Project. A commenter suggested that the BSA should be expanded to include the eastern portion of the Los Angeles State Historic Park, due to the potential for the presence of higher quality wildlife habitat (as addressed further in Section 5). The commenter proposed that this area would be impacted by

indirect effects arising from an unavoidable shift in park event activity toward the eastern end of the park. However, although that area appears to contain better quality wildlife habitat than the grassy lawns covering much of the rest of the park, it is more than 1,000 feet from the proposed Project alignment and more than 500 feet outside of the current BSA, and is accordingly located too far away from the proposed Project for construction or operation of the proposed Project to have an impact on potential habitat in this area. Moreover, the park and surrounding area is subject to high levels of disturbance on a regular basis, including concerts, music festivals, outdoor movies, and other events that regularly include high-amplitude speakers, food trucks, and large numbers of people. The habitat in the eastern end of the park is near streets with vehicular traffic, parking lots, and a walking path with regular human foot traffic, in addition to the disturbances noted above. Therefore, birds and other wildlife using the habitat at the eastern end of the State Park should already be accustomed to high levels of disturbance. Finally, Section 5.5.2 of the Draft EIR indicates that most events could still be held underneath or adjacent to the alignment, and that the proposed Project would not interfere with typical existing event stage locations (Figure 5-3). Therefore, it is unlikely that the proposed Project would result in a shift in park event activity towards the eastern end of the park, as the comment suggests.

2.1.3 Specialized Survey Techniques

It was suggested that radar studies and nocturnal surveys be included to evaluate the species of nocturnal bird migrants passing over the BSA, as well as their flight heights. These types of specialized surveys would be warranted if 1) migration were expected to be concentrated in the vicinity of the proposed Project alignment; and 2) potentially significant impacts were anticipated. However, neither of these is expected in this case (see Section 3.4 of the Draft EIR and additional comments in Section 3.1.2 of this memo, below, regarding collision risk), and accordingly, the use of more specialized survey techniques is unwarranted.

3 OPERATIONAL IMPACTS

Comments were received that pertained to the Draft EIR analysis of operational impacts and collision risk to wildlife posed by components of the proposed Project, including the following:

- P708-4 to P708-13 (Land Protection Partners)
- G014-134 to G014-138 (LA Parks Alliance)
- S1-4 to S1-6 (CDFW)
- P700-35 and P700-39 (Phyllis Ling)
- P489-2 (Ana Silva)
- PH315-2 (Diane Weiss)
- P256-4 (Carol Ng)

The main points raised by one or more comments fall under one of the following categories: diurnal collision risk of cables is not different from transmission lines; nocturnal avian and bat collision risk is underestimated; impacts from avian collisions is underestimated; and insufficient avoidance and minimization of collisions.

3.1 TECHNICAL RESPONSE TO COMMENTS

3.1.1 Diurnal Collision Risk of Cables Relative to Transmission Lines

There are limited empirical data available on avian collision with gondola cables, particularly in urban environments. A review of the literature since the publication of the Draft EIR provided no new information on this topic. However, as discussed in Appendix B, Memorandum from Doppelmayr Regarding Comparable System Bird Strikes, to this report, Doppelmayr USA, one of two manufacturers of 3S gondola systems in the world, noted that a similar 3S gondola project measuring about 0.5 mile long and spanning the Rhine River in an urban environment in Koblenz, Germany was recently approved for an extension of their operating permit after the first 3 years of operation, noting that no bird strikes were detected during that period.

Given the paucity of studies on gondola systems impacts to wildlife, using data on wildlife collisions with transmissions lines (see Section 3.4.4 of Draft EIR, discussion under BIO-1, Operational Impacts) is a logical approach for comparison due to greater data availability. However, in the absence of studies that directly compare avian collision rates with transmission lines to their collision rates with ropeway cables associated with gondola systems, it would not be appropriate to assume gondola cables present the same diurnal collision risk. Indeed, several design features of the proposed Project can only be described as more likely to result in lower avian collision risk for gondola systems when compared with transmission lines. First, unlike most transmission lines, the proposed Project's ropeway cables would not be equipped with a shield wire. Shield wires are typically placed above phase conductors on transmission lines to protect the lines from lightning strikes, but in effect also add an additional plane that can contribute to bird strikes. Shield wires are 0.4 to 0.5 inch in diameter, compared to the 1.75 to 2.5 inches in diameter of the system's ropeway cables. The proposed Project would lack this shield wire component, which would be expected to reduce (not increase) collision risk, relative to transmission lines with shield wires.

Similarly, the three ropeway cables (two stationary “track ropes” and the “haul rope”) would be spaced 6 inches to 3 feet apart. This tight clustering, in conjunction with the fact that the ropeway cables are thicker than transmission lines, should make them more visible to birds compared to transmission lines. In addition, the proposed Project would include slack carriers, which are another design component that would increase the visibility of the cables to birds. Slack carriers are devices that support and maintain proper separation between the cables of 3S systems. Slack carriers are attached to the system’s two stationary cables (the “track ropes”) and provide support sheaves for the third cable that circulates continuously around the system (the “haul rope”). While the exact quantity and location of the slack carriers along the track ropes would be determined during the design phases of the proposed Project, it is anticipated that slack carriers would be placed approximately every 350-500 feet with adequate separation from the stations, junction, and towers. The slack carriers of one gondola lane can be staggered from or aligned with the adjacent lane. Finally, the gondola cabins travel along the cables at frequent intervals during the periods of operation, further increasing the visibility of the cables along which they are moving. The number of cabins passing over a given location along the alignment is expected to be 80 per hour during periods of low use, and 314 cabins per hour during Dodger games or events at Dodger Stadium. Furthermore, the windows on the cabins should not pose any collision risk to diurnal birds because they will be non-transparent (tinted), and partially covered with a vinyl window film, which would reduce reflectivity and increase visibility to birds.

There was one comment suggesting that the portrayal of the cables as being highly visible to birds but not overly conspicuous to people was implausible, but there are two factors that must be considered. One factor is that most birds have far higher levels of visual acuity than humans, and can resolve movement much faster than humans. Most diurnal birds have a much higher concentration of rods and cones in their eyes than humans, and their retinal structure allows for resolution of movement above 100 hertz, compared to 60 hertz for humans (reviewed in Gill 2007). Birds are therefore capable of detecting objects from much further away than humans and can react to objects appearing in their visual field much more rapidly than humans. The second factor is that the cables will be approximately between 46 and 175 feet above ground level (agl), relatively far from the perspective of most humans in the vicinity of the proposed Project. For these reasons, the visual disturbance posed to humans from cables of a given diameter is not directly comparable with the detectability of the same cables to birds flying near the cables.

Importantly, avian mortality rates cited in studies associated with transmission lines include mortalities arising from factors other than collision-related trauma, suggesting that avian mortality rate studies may disproportionately attribute avian mortality to collision, rather than other causes of death (which would not occur in association with the proposed Project). For example, some proportion of observed mortality would be due to electrocution resulting from birds interacting with the energized components of transmission lines, and the proportion of birds to which this would apply is rarely quantified in such studies. In fact, a recent study by Thomason et al. (2023) evaluated the cause of mortality for deceased birds found below transmission lines in four western U.S. states. Among the 175 birds for which the cause of death could be determined, they reported that 66% were killed by gunshot, 17% by electrocution, and 17% by trauma.

For the reasons outlined above, the ropeway cables are expected to present, if anything, a lower risk of mortality to birds compared to that associated with transmission lines. However, even if the cables were assumed to pose a similar risk to birds as transmission lines, the impacts would be less than significant for reasons addressed below.

3.1.2 Nocturnal Avian and Bat Collision Risk

Commenters suggested that the cables, gondolas, and towers would pose a collision risk to birds flying at night, especially nocturnal migrants. However, the proposed Project towers and cables are below the heights where most nocturnal avian collision impacts occur. Most avian flight during migration occurs at thousands of feet agl, whereas the proposed Project component heights are all below 200 feet agl.

- Cable heights at:
  - Alameda and Alpine Towers: 175 feet agl
  - Stadium Tower: 159 feet agl
  - All other stations/junction: 74 to 98 feet agl
- Tower heights: all are less than or equal to 195 feet

As noted by Longcore et al. (2008), most avian migrants fly at 200 to 750 m (65 to 2,460 ft) agl (Able 1970, Bellrose 1971, Mabee et al. 2006), with one study estimating that only 2-15% of migrants flew below 91 m (300 ft) agl (Mabee and Cooper 2004). Indeed, according to experts in the field of avian collision risk, structures below 200 feet agl contribute negligibly to overall annual bird mortality (Longcore et al. 2012), *even in weather conditions with reduced cloud ceiling* (USFWS March 2021). Further, as discussed below, these components are located within an urban environment with many other obstacles of similar heights, and because avian flight during migration occurs at thousands of feet agl, the proposed Project components accordingly are not anticipated to contribute significantly to overall annual bird mortality.

Some comments raised concerns about natural migration concentration points near the proposed Project alignment. Such concentration points could include prominent ridgelines or valleys that provide optimal conditions or pathways to migrating birds, or stopover habitat that provides suitable forage or shelter to migrants. The Draft EIR states that migrant birds would pass over the alignment, and there is potential for birds to interact with ropeway cables when flying below 175 feet agl and towers when flying below 200 feet agl. However, there is little evidence to suggest that the presence of natural features, such as the Los Angeles River or Silver Lake Reservoir, would result in concentrated migration, specifically in the proposed Project area. The Los Angeles River, which is approximately 0.5 mile east of the BSA is heavily impacted and is predominantly a concrete water-conveyance structure. The river corridor does not contain appreciable vegetation until it reaches more than 1 mile north of the proposed Project BSA. The Silver Lake Reservoir is more than 2 miles to the northwest. Waterbirds and other migrants may pass over the proposed Project en route to and from these locations, but there is no reason to believe the movement would be concentrated in the vicinity of the proposed Project (and below 200 feet agl) versus along alternate routes. Furthermore, direct movements between vegetated portions of the river and the Silver Lake Reservoir would not result in birds passing over the proposed Project alignment.

Furthermore, birds and bats flying in the vicinity of the proposed Project are already exposed to obstacles that present the potential for collision at heights similar to or greater than (>) the highest-reaching proposed Project components, such as the towers, which would reach 478 to 584 feet above mean sea level (amsl), or the ropeway cables associated with those towers, which would reach 458 to 564 feet amsl. These obstacles include:

- Buildings less than (<) 1 mile west of the proposed Project alignment, in downtown Los Angeles, some of which reach more than 1,000 feet agl;

- A 230 kilovolt LADWP-owned transmission line runs roughly parallel to the proposed Project, along the Los Angeles River corridor, between 2,400 and 3,000 feet to the east, with approximately 120 to 155-foot-tall (agl) transmission towers reaching approximately 400 to 435 feet amsl;

- The radio tower on aptly named Radio Hill, 700 feet northeast of the Stadium Tower, which reaches 640 feet amsl;

- The eight sets of stadium lights atop Dodger Stadium, at the northern terminus of the alignment, which reach 665 to 680 feet amsl; and

- A 23-story (291-foot-tall) building, proposed for construction 400 feet west of the proposed Project alignment.

Regarding the potential for artificial lighting in the vicinity of the proposed Project to attract bats or nocturnal migrant birds and increase collision risk, development in the entire LA Basin provides a major source of light pollution, and there is no evidence that light in the vicinity of the proposed Project would draw bats or migrant birds to the area, any more than similar lighting in other areas over the LA Basin would be expected to. Similarly, although bats have been noted to collide with artificially lighted structures such as radio and television towers or lighthouses (see P708, Footnote 13), these are generally isolated structures in rural areas where the lighting would stand out from surroundings. Likewise, others have suggested that increased ambient lighting associated with the proposed Project may increase the risk collision with stationary objects by bats (see P708, Footnote 12). The lighting associated with the proposed Project would be minimal, contributing only negligibly to the ambient light in this urban environment, and would not be expected to increase the risk of collision for bats. Due to the large amount of lighting already in the environment, the small amount of lighting added by the proposed Project would not be expected to result in avoidance of the area by bats (see P708, Footnote 14).

Regarding the potential for Dodger Stadium field lights to attract birds, it is important to note that the lights from Dodger Stadium are angled downward, not upward into the darkness as in the *Tribute in Light* display in New York City (which was a case referenced by some of the commenters), and are not nearly as bright or concentrated as that display. The occurrence of the greater white-fronted goose that landed at Dodger Stadium in October 2022 that was cited as an example of lights attracting migrants is far from definitive. One example is not an indication of a widespread phenomenon, and unless the bird was examined by a veterinarian before being released, it is impossible to know whether it landed because of the lights or whether it had some other issues that resulted in it landing on the field during the game. Moreover, if lighting at stadiums is a major attractant to birds during migration, there should be many more examples of this phenomenon, given the large number of professional sports (e.g., baseball, football, soccer), and concert events that occur at such venues at night during spring and fall migratory periods. The fact that this greater white-fronted goose case gained nation-wide attention suggests it is not a particularly frequent occurrence.

3.1.3 Risk of Avian Collisions

Based on the information provided in Sections 3.2.1 and 3.2.2 above and in the BRA/Draft EIR, the collision risk to common bird species arising the proposed Project components is expected to be low. Although sensitive bird species such as the loggerhead shrike (*Lanius ludovicianus*) and Peregrine falcon (*Falco peregrinus*) have been documented via the eBird website to occur in the vicinity of the proposed Project (per CDFW, Comment S1-5), the risk of collision for such species would be exceedingly low given the overall low probability of birds colliding with

components of the proposed Project in general, and the fact that these species are relatively rare and would comprise a low percentage of bird species present in the vicinity of the proposed Project. Furthermore, eBird checklists often cover observations made over a broad area, yet all observations are associated with only a single point, making it difficult to understand precisely where each individual observation was made.

4 TREE REMOVAL

Comments were received that pertained to the impacts of tree and brush removal on wildlife and habitat, including the following:

- G014-143 (LA Parks Alliance)
- S1-8 (CDFW)
- GO21-9 to GO21-11 (LA River State Park Partners)
- P608-3 and P608-10 (Yee Ting Huang)
- P677-12 (Ron Frank)
- P702-120
- PH315-2 (Diane Weiss)
- P608-3, P608-10 (Yee Ting Huang)

Although the comments varied in their specific arguments, the main points raised by one or more comments fall under one of the following categories: the proposed replacement ratios are unclear; the location of replacement trees is not stated, and there are constraints; and the removal of trees or brush may cause temporary or permanent impacts to wildlife habitat.

4.1 TECHNICAL RESPONSE TO COMMENTS

4.1.1 Tree Replacement Ratios

Several commenters noted that the replacement plan for trees removed in association with the proposed Project was not clear as outlined in the Draft EIR, thereby making it difficult to evaluate potential impacts to wildlife habitat. There were questions regarding the number of trees that would be replaced, and the ratio at which those trees would be replaced with new trees.

First and foremost, the proposed Project intends to comply with ordinances and requirements applicable to tree replacement, based on the corresponding jurisdiction of the property where each tree is located. Table 4-1 summarizes known mitigation requirements for trees removed in the City of Los Angeles. As noted in the Draft EIR, the City of Los Angeles requires the replacement of trees at specified ratios—depending on the tree type—under the City's Native Tree Protection Ordinance and Street Tree Policy. A tree or shrub is "protected" if it is 4 inches or greater in diameter at 4.5 feet above ground (i.e., diameter at breast height [DBH]) and is one of the protected tree species listed in Table 4-1. Importantly, a tree that is part of a plant program is not protected. As discussed in Appendix E: Biological Resources Assessment of the Draft EIR, in practice, the City of Los Angeles Planning Department considers a tree "significant," even if non-protected, if the trunk is > 8 inches at 4.5 feet DBH. Protected trees require a replacement ratio of 4:1, while significant trees require a mitigation ratio of 1:1. Removed "street trees" that occur in the public right-of-way (ROW) are to be replaced at a ratio specified by the Urban Forestry Division; typically, at a 2:1 ratio (Table 4-1).

A review of applicable regulations of the California Department of Transportation, California Department of Parks and Recreation, California Department of Fish and Wildlife (CDFW), and Santa Monica Mountains Conservancy did not reveal any specific requirements for tree replacement by those agencies. As discussed on page 3.4-23, in Section 3.4, Biological Resources, of the Draft EIR, it is anticipated that mitigation ratios for trees on land administered or managed by one these entities will be agreed to as part of the proposed Project approvals required for implementation of the proposed Project. However, the proposed Project will provide a minimum replacement ratio of 1:1 for all trees removed in the Los Angeles State Historic Park and a minimum replacement ratio of 1:1 for all “large” trees (>trees greater than 8 inches DBH) removed in the State Route (SR) 110 California Department of Transportation (Caltrans) ROW.

Table 4-2 provides additional clarity on the number of trees proposed for removal as part of the proposed Project. Tree numbers are further broken down by property owner, where applicable, to better illustrate proposed tree replacement numbers. Of the 260 trees identified in the tree inventory report, 250 are proposed for removal and 10 would be preserved. Of the 250 trees proposed for removal, 141 are under the jurisdiction of the City of Los Angeles, including: one protected tree, 106 significant trees, and 34 trees in the City ROW. The other 109 trees proposed for removal are under the jurisdiction of an entity other than the City, including 75 trees within the California Department of Parks and Recreation’s jurisdiction. Overall, a total of 145 “large” trees (> 8 inches DBH, regardless of land ownership) and 105 trees with DBH < 8 inches would be removed in associated with the proposed Project, and would be replaced with at least 242 new trees.

Table 4-1. City of Los Angeles Tree Replacement Requirements

Source of Law	Tree Type	Replacement Ratio
City of Los Angeles Native Tree Protection Ordinance (LAMC Section 46.00, *et seq*)	**Protected Trees** • Valley oak (Quercus lobata) • Coast live oak (*Quercus agrifolia*) • Any other tree of the oak genus indigenous to California, but not including the scrub oak (*Quercus dumosa*) • Southern California black walnut (*Juglans californica*) • Western sycamore (*Platanus racemose*) • California bay (*Umbellularia californica*) • Mexican elderberry (*Sambucus nigra*) • Toyon (*Heteromeles arbutifolia*)	4:1[1] [2]
City of Los Angeles Planning Department	**Significant Trees** Non-protected but "significant" trees, i.e., where the trunk diameter is > 8 inches at 4.5 feet DBH	1:1[3]
City of Los Angeles Street Tree Policy (LAMC Section 62.170)	"Street trees" (i.e., occurring in the public ROW)	As specified by Urban Forestry Division; typically, 2:1[4] [5]

[1] Size and number of replacement trees shall approximate the value of the tree. (LAMC Section 46.02, subd. (c)(1).)
[2] A tree that is part of a plant program is not protected. (LAMC Section 46.01.)
[3] Carlberg Associates. 2023. Tree Inventory Report: LA ART Project – Los Angeles, CA.
[4] Carlberg Associates. 2023. Tree Inventory Report: LA ART Project – Los Angeles, CA.
[5] In-lieu fees possible where replacement trees are not feasible. (LAMC Section 62.177, subd. (b).)

Table 4-2. Summary of Proposed Tree Removal and Replacement by Project Component

Project Component	Owner	Total # of Trees	# to be Removed	Per City of Los Angeles Planning Department			Total # Large Trees (>8 in DBH)[2]	# Trees to be Replaced	Tree Replacement Ratio	Assumed # Replacement Trees
				# Protected	# Row Trees	# Significant Trees[1]				
Alameda Station	ROW	12	12	0	12	0	6	12	Discretion of Urban Forestry; typically, 2:1	24
Alameda Tower	ROW	10	10	0	10	0	7	10	Discretion of Urban Forestry; typically, 2:1	20
Chinatown/ State Park Station	ROW	6	6	0	6	0	2	6	Discretion of Urban Forestry; typically, 2:1	12
	State	24	24	0	0	0	7	24	Discretion of California Department of Parks and Recreation, assumed minimum 1:1, all trees.	24
Los Angeles State Historic Park (Alignment)	State	57	51	0	0	0	11	51	Discretion of California Department of Parks and Recreation; assumed minimum 1:1, all trees	51
Broadway Junction	Private Property	20	19	1[3]	0	18[4]	19	19	• 1 Protected Tree (Mexican Elderberry): 4:1 • 18 Significant Trees: 1:1	22
	ROW	6	6	0	6	0	0	6	Discretion of Urban Forestry; typically, 2:1	12
SR-110 Caltrans ROW (Alignment over)	Caltrans	8	5	0	0	0	5	5	Discretion of Caltrans; assumed minimum 1:1, for Large trees (>8 inches DBH)	5
Stadium Tower	Private Property	10	10	0	0	10	10	10	1:1, for Significant trees	10
Stadium Tower – Fire Buffer	Private Property	74	74	0	0	45	45	45	1:1, for Significant trees	45

Project Component	Owner	Total # of Trees	# to be Removed	Per City of Los Angeles Planning Department			Total # Large Trees (>8 in DBH)[2]	# Trees to be Replaced	Tree Replacement Ratio	Assumed # Replacement Trees
				# Protected	# Row Trees	# Significant Trees[1]				
Dodger Stadium Station	Private Property	33	33	0	0	33	33	33	1:1, for Significant trees	33
TOTALS		**260**	**250**	**1**	**34**	**106**	**145**	**205**		**242**

Notes:

= Number

TBD = To be determined

[1] Significant per City of Los Angeles Planning Department. Includes only trees proposed for removal.

[2] Includes all “large” trees (DBH > 8 inches), regardless of ownership or City of Los Angeles designation.

[3] Protected Mexican Elderberry

[4] Excludes Mexican Elderberry

4.1.2 Location of Tree Replacement

Replacement trees would be planted as near to the location of removal as possible. Tree replacement locations would be coordinated with the landowner or party responsible for managing the land, including the City of Los Angeles, California Department of Parks and Recreation, and Caltrans.

Replacement trees for those removed from the Stadium Tower and associated fire buffer area be planted in the vicinity of the original removal site, because the fire buffer is only required during construction, and because the tower and associated cables will be sufficiently high to allow small to medium trees below them. Trees planted under the proposed alignment would be selected to ensure that their maximum potential height would not encroach upon the ANSI required vertical clearance, described in Section 2.0, Project Description, of the Draft EIR.

Trees removed from areas of permanent disturbance (e.g., alignment stations), where replacements cannot be placed, would be replaced with trees planted in nearby areas.

4.1.3 Impacts to Wildlife from Tree Removal and Brush Clearance

As discussed in Section 3.4.2, Environmental Setting, of the Draft EIR, there are no sensitive natural communities such as wetlands, oak woodlands, or coastal sage scrub habitat in the BSA. There are no wildlife corridors in the BSA to support movement of wildlife species. There are no Habitat Conservation Plans that overlap with the BSA, and the nearest Significant Ecological Area is approximately 5 miles north-northwest of Dodger Stadium at Griffith Park. As discussed in Section 3.4.3, Methodology, of the Draft EIR, a proposed project would only have a significant impact on biological resources if it would "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species." An overview of tree removal in areas that could be considered wooded habitat for common species is provided for informational purposes, below.

The removal of certain of the trees for the proposed Project would result in a small reduction of wooded habitat for wildlife species that depend on these habitats for cover, nesting, roosting, foraging, and other reasons. The magnitude of impacts to wildlife from the removal of this vegetation depends on several factors, including the amount of wooded habitat to be removed and the quality of that habitat. In the long-term, the impacts are also affected by the replacement plan for the removed trees.

The quality of wildlife habitat provided by the trees proposed for removal is relatively low, given that the trees are primarily non-native tree species. Of the 26 tree species identified in the tree inventory report, 20 are considered non-native (and five of those are considered invasive). Furthermore, 122 of the 145 large trees (>8 inches DBH), and 71 of the 105 smaller trees, are non-native species. All of the 57 native trees were planted as ROW trees (12 trees) or were planted as part of a plant program in the Los Angeles State Historic Park, and 34 of these 57 trees are young, with a DBH of <8 inches. Other areas are composed of 100-percent non-native trees, often covered in non-native and invasive vines such as Kudzu (*Pueraria montana*).

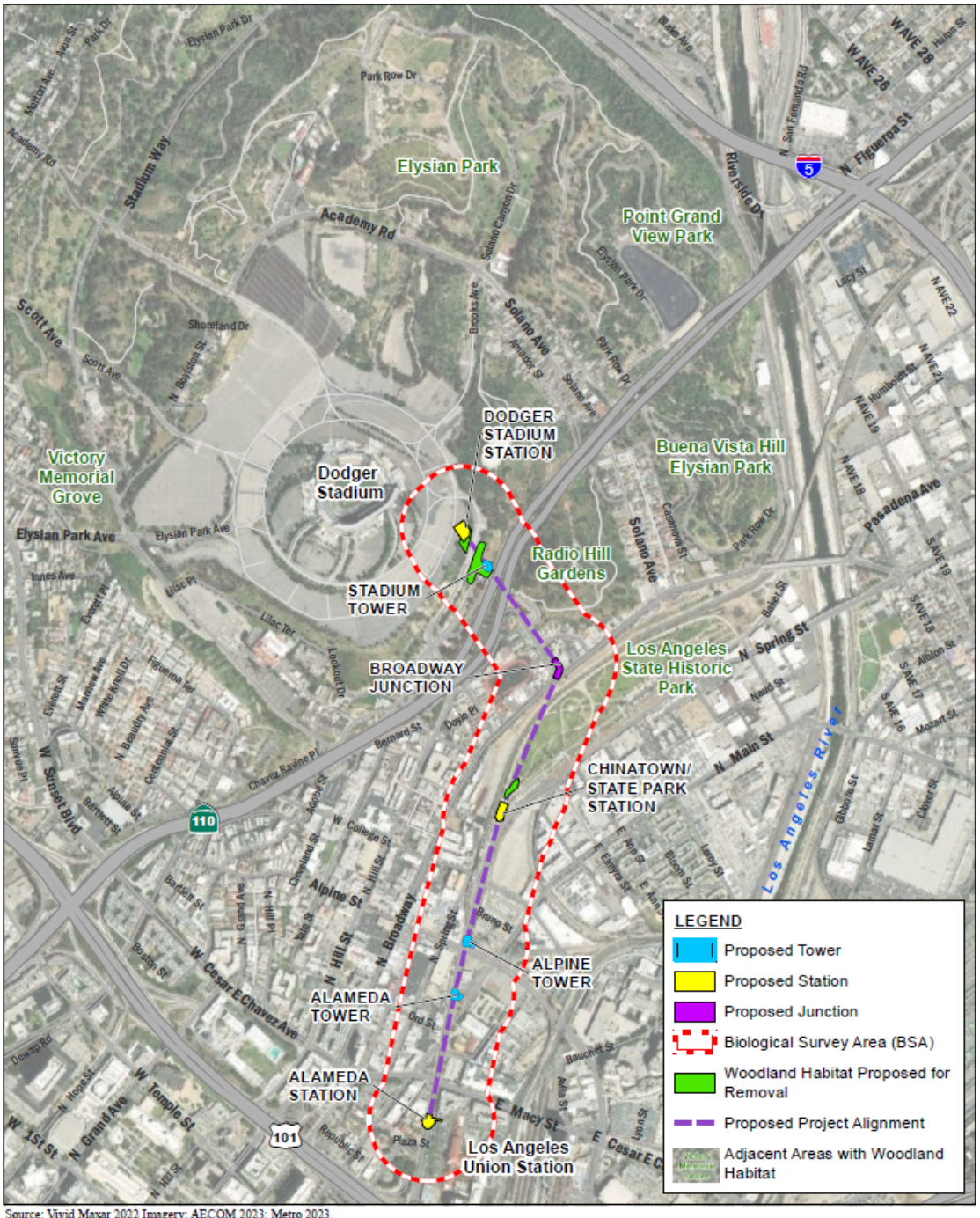
The only areas of tree removal that could be potentially described as wooded habitat are the following: the small grove of Fremont cottonwood trees at the western end of the Los Angeles State Historic Park, the non-native woodland at the Stadium Tower and associated fire buffer, and the non-native woodland at the Dodger Stadium Station location. The total area of wooded

habitat that would be removed in each of these areas is 0.24, 1.02, and 0.39 acres, respectively. These areas are relatively small amounts of wooded habitat, compared to the amounts available in the immediately surrounding areas, such as Elysian Park (approximately 600 acres alone, much of which is wooded), Radio Hill Gardens, Victory Memorial Grove, and Point Grand View Park (Figure 4-1).

In the short-term, the removal of trees will result in a marginal reduction of suitable tree habitat for nesting birds, roosting bats, and other wildlife in the vicinity of the proposed Project. Common wildlife species would be expected to utilize adjacent habitats, and substantial population level impacts to common species would not be expected due to the small amount of habitat loss relative to the amount of habitat available in surrounding areas. In the long-term, the replacement of the 145 large trees proposed for removal with 242 new trees (Table 4-2) would more than offset any realized impacts associated with the Project.

The brushy understory in some of the wooded habitat provides potential breeding locations and protective cover for common small mammals and birds. Although the removal of the wooded habitat would similarly result in a reduction in brushy understory, the amount of brushy understory proposed for removal is small in comparison to the amount in the surrounding areas. Brush cleared from the fire buffer area surrounding the Stadium Tower location would be allowed to regenerate naturally after construction, subject to applicable defensible space requirements. Refer to Section 3.20, Wildfire, of the Draft EIR for a discussion of applicable defensible space requirements.

Figure 4-1. Areas of Woodland Habitat Proposed for Removal within BSA, in Relation to Similar Habitat in Surrounding Area



Source: Vivid Maxar 2022 Imagery; AECOM 2023; Metro 2023.

0 625 1,250 Feet

Figure 4-1
Areas of Woodland Habitat Proposed for Removal within BSA, in Relation to Similar Habitat in Surrounding Area

5 IMPACTS TO SPECIES NOT CONSIDERED

Comments were received that pertained to impacts (other than collision-related injury/mortality) on species not specifically addressed in the Draft EIR analysis, including the following:

- S1-7 (CDFW)
- P700-38 (Phyllis Ling)
- G014-138 and GO14-140 to GO14-141 (LA Parks Alliance)

The main points raised by one or more comments fall under one of the following categories: the proposed Project could impact least Bell's vireos; and the proposed Project could impact burrowing owls.

5.1 TECHNICAL RESPONSE TO COMMENTS

5.1.1 Potential for Impacts to Least Bell's Vireo

A commenter suggested the proposed Project could potentially impact endangered least Bell's vireos because a singing male of this species was reportedly detected within the Los Angeles State Historic Park in May of 2022. It is unclear from the information presented, exactly where in the Los Angeles State Historic Park this observation took place. No least Bell's vireo breeding habitat was identified within the BSA during surveys performed for the BRA (AECOM 2022b). The BSA was surveyed again on March 23, 2023, and no suitable habitat was present. There is a small managed area at the eastern end of the Los Angeles State Historic Park that includes some riparian plants and a depression where water collects during wet periods. These are features consistent with least Bell's vireo breeding habitat. However, at best, this habitat would be considered marginally suitable breeding habitat for least Bell's vireos, due to the small patch size and distance to the nearest perennial water source (approximately 1,000 feet from the Los Angeles River).

The patch of habitat at the eastern end of the Los Angeles State Historic Park is more than 500 feet outside of the BSA, and more than 1,000 feet away from the proposed Project alignment, where Project construction would occur. It is well beyond the distance of any expected direct or indirect impacts associated with the proposed Project (see also Section 2.1.2 above for a discussion of potential indirect impacts arising from construction and operation). Both the CDFW (2022) and U.S. Fish and Wildlife Service ([USFWS] 2014) recommend 500-foot disturbance buffers for least Bell's vireos, with protocol surveys in suitable habitat within 500 feet of proposed construction areas. This is, in part, why the 500-foot distance was selected for the BSA. The habitat in question is more than 1,000 feet from proposed Project construction areas, and therefore no impacts to wildlife in that area are expected. Due to the absence of suitable least Bell's vireo breeding habitat in the BSA, least Bell's vireos are not expected to be present in the BSA.

5.1.2 Potential for Impacts to Burrowing Owl

One comment from CDFW (S1-7) noted that observer records on the iNaturalist website, a citizen science website that allows the public to enter observations of plant and wildlife species,

indicated California ground squirrels have been detected in the Los Angeles State Historic Park. Burrowing Owls commonly use ground squirrel burrows for nesting and roosting, suggesting there may be potential for burrowing owl habitat in the BSA. As described in the Draft EIR, no California ground squirrels, burrowing owls, or suitable habitat for burrowing owls were detected during initial surveys. A subsequent survey of the BSA was performed on March 23, 2023, during which potentially suitable burrowing owl habitat (open, flat terrain with short vegetation) and immediately adjacent areas were surveyed for the presence of California ground squirrels or their burrows. No California ground squirrels or burrows were visually detected in the surveyed areas. California ground squirrel vocalizations were heard on the slope between the proposed Dodger Stadium Station and the Stadium Tower locations. Although this area could not be surveyed on foot, it was deemed not suitable for burrowing owls due to the presence of trees, tall ground cover vegetation, and a steep slope.

6 PIGEON ROOST INDUCEMENT

Comments were received that pertained to impacts on species not specifically addressed in the Draft EIR analysis, including the following:

- G014-139 (LA Parks Alliance)
- P708-19 (Land Protection Partners)

The main points raised by one or more comments fall under the following: open canopies of stations likely to result in rock pigeon roosts, which pose a human health risk and could require chemical or potentially inhumane measures to control pigeon numbers.

6.1 TECHNICAL RESPONSE TO COMMENTS

6.1.1 Potential Need for Pigeon Abatement

The platforms at the Alameda Station, Chinatown/State Park Station, Broadway Junction, and Dodger Stadium Station could provide roosting or nesting opportunities for pigeons or other bird species, most notably between the aluminum perforated canopy structure and the bridge crane.

To prevent the use of station canopies by pigeons or other birds, there are numerous non-chemical and non-lethal anti-perching devices (e.g., Nixalite® bird spikes) that can be installed to prevent birds from becoming established. Chemical methods of pigeon removal or control would be avoided. It is also worth noting that the surrounding area contains numerous potential roosting and nesting opportunities (e.g., in the nearby buildings and billboard signs), and that the stations and junction themselves would not be drawing pigeons into the area and concentrating them above current levels.

7 LITERATURE CITED

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APPENDIX A: LIST OF WILDLIFE SPECIES OBSERVED DURING MARCH 23, 2023 SITE VISIT AND SURVEY

Table A-1: List of Wildlife Species Observed During Site Visit and Survey of Los Angeles ART Project Biological Survey Area, March 23, 2023 from 11:00 AM to 3:30 PM.

Class	Common Name	Scientific Name	Common Group Name
Aves (Birds)	Allen's hummingbird	*Selasphorus sasin*	Hummingbird
	Anna's hummingbird	*Calypte anna*	Hummingbird
	California towhee	*Melozone crissalis*	Towhee
	cedar waxwing	*Bombycilla cedrorum*	Waxwing
	common raven	*Corvus corax*	Raven
	European starling	*Erithacus rubecula*	Robin
	house finch	*Haemorhous mexicanus*	Finch
	house sparrow	*Passer domesticus*	Sparrow
	killdeer	*Charadrius vociferus*	Killdeer
	mourning dove	*Zenaida macroura*	Dove
	Northern mockingbird	*Mimus polyglottos*	Mockingbird
	red-tailed hawk	*Buteo jamaicensis*	Hawk
	rock pigeon	*Rupornis magnirostris*	Hawk
	song sparrow	*Melospiza melodia*	Sparrow
	spotted towhee	*Pipilo maculatus*	Towhee
	turkey vulture	*Cathartes aura*	Vulture
	American white pelican[1]	*Pelecanus erythrorhynchos*	Pelican
	white-crowned sparrow	*Zonotrichia leucophrys*	Sparrow
	white-throated swift	*Aeronautes saxatalis*	Swift
	yellow-rumped Warbler	*Setophaga coronata*	Warbler

Class	Common Name	Scientific Name	Common Group Name
Mammalia (Mammals)	desert cottontail	*Sylvilagus audubonii*	Rabbit
	California ground squirrel	*Otospermophilus beecheyi*	Squirrel

[1] California Species of Special Concern (SSC) (CDFW 2023, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406, Accessed May 15, 2023)

APPENDIX B: MEMORANDUM FROM DOPPELMAYR REGARDING COMPARABLE SYSTEM BIRD STRIKES

Memorandum

To: Michael J. Kuehn, Ph.D., AECOM
From: Ted Blazer, Doppelmayr USA
Date: June 26, 2023

Subject: Data regarding Bird Strikes at the Koblenz 3S System

Doppelmayr is a leader in aerial transport technology and was the designer and supplier of a 3S aerial gondola system in Koblenz, Germany. During the Buga 2011 horticultural show with more than 3.5 million visitors and nearly 6 million gondola passengers, Doppelmayr was the operator of the urban ropeway installation and as such for several years after. This urban installation connects the city center directly with the opposite side of the Rhine River and provides the best access to the busy Ehrenbreitstein Fortress. It also facilitates access to Koblenz from the remote opposite parking lot toward the city center. Regarding data on bird strikes at this 3S aerial gondola system, the operating permit for Koblenz was recently extended following its first three years of operation. As part of the permitting process for the extension, it was required that information on bird strikes during the initial operating years be submitted. Experts conducted monitoring for bird strikes during the permit compliance. It was found that no bird strikes were documented during this period. As noted in the permitting documents, there is a reduced risk of migratory birds approaching the 3S ropeway because of the cables' visibility due to the thickness of the cables, as well as the presence of slack retainers, which are there to help support the track cables.